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Birds

THE AVICULTURAL MAGAZINE

BEING THE JOURNAL OF THE
AVICULTURAL SOCIETY FOR
THE STUDY OF BRITISH AND
FOREIGN BIRDS IN FREEDOM
AND IN CAPTIVITY

EDITED BY

THE HON. ANTHONY CHAPLIN AND MISS E. F. CHAWNER

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CONTENTS

	PAGE
TITLE-PAGE	i
CONTENTS	iii
ALPHABETICAL LIST OF CONTRIBUTORS	v
LIST OF PLATES	xi
OFFICERS FOR THE YEAR 1935	1
LIST OF MEMBERS	3
RULES OF THE AVICULTURAL SOCIETY	23
THE SOCIETY'S MEDAL	26
MAGAZINE	1
INDEX	337

ALPHABETICAL LIST OF CONTRIBUTORS

AMSLER, DR. MAURICE.

Fertility of the Hooded Siskin and Canary Hybrid, 229.
Breeding of the Amethyst Starling, 295.

AN ORNITHOLOGIST.

The Aims of the Society, 263.

APPLEBY, JOSEPH.

Bird Feeding, 27.

ASHBY, MRS. R. G.

My Birds in Scotland, 205.
Softbills, 208.

BANKS, GEOFFREY.

Tame Birds, 160.

BENNETT, J. C.

Birds of a Tasmanian Garden, 239.

BLAIR, J. O'N.

Obituary—Mr. Samuel McGredy, 30.

BLYTHE, HYLTON.

British Bird Breeders' Association, 195.

BOOSEY, E. J.

Breeding Results at the Keston Foreign Bird Farm during 1934, 72.
The Princess of Wales's Parrakeet, 119.
The Grass Parrakeets—Some Facts and Fictions, 120.
Gentlemen Only, 250.

CHAPLIN, HON. ANTHONY.

Review—*Les Oiseaux*, Vol. I, 29.
The Abyssinian Cliff-Chat, 33.
Sunbirds Wintering in the Open, 58.
The Crystal Palace Show, 88.
The North Island Robin, 89.
Obituary—Mr. G. B. Chapman, 118.
Obituary—Major E. J. T. Housden, 149.
Mr. Webb's Collection from the Cameroons, 158.
The New Zealand Tomtit, 163.
The Rosy Twin-Spot, 197.
Reviews—*Some Birds of the London Zoo*, 236.
The Birds of Midlothian, 236.
The Mombasa Collared Sunbird, 267.

CHAWNER, MISS E. F., F.Z.S.

- The History of A 1, 216.
 Obituary (R. W.)—Nora, Lady Dunleath, 294.
 North Country Memorial to Viscount Grey, 307.
 Editorial, 308.
 The Plumhead Finch, 315.
 Reviews—*Every Garden a Bird Sanctuary*, 309.
 Ornamental Pheasants, 309.
 Vögel Ferner Länder, 310.
 Nature in the Wild, 335.

DARNTON, MRS.

- The Successful Breeding of the Layard's Parrakeet, 275.

DELACOUR, J., F.Z.S.

- Bird-breeding at Clères, 24.
 Breeding of Courier Water-Tyrant, 171.
 Notes on Pheasants, their Status at Liberty and in Captivity, 268.

DENNIS, MRS.

- Gouldian Finches, 26.

DE PLEDGE, MISS B.

- Precious Has an Adventure, 215.

DRAKE, MRS. K.

- Peter's Spotted Firefinch Breeding, 161.
 The Breeding of Firefinches, 198.
 Lives of Some Aviary-bred Birds at Mylor, Cornwall, 199.
 Further Successes at Mylor, 237.

ESSEX, COUNTESS OF.

- Polly—My Amazon, 277.

EZRA, ALFRED, O.B.E.

- Breeding Results from Foxwarren Park, 1934, 105.
 Successful Rearing of the Silky Starling, 214.
 The Formosan Blue Magpie, 288.
 Parrakeet Breeding Results at Foxwarren Park in 1935, 330.

EZRA, DAVID.

- Successful Rearing of the Blue-necked Crowned Crane in Captivity, 59.

GODDARD, MRS.

- A Tame Troupial, 329.

GOODFELLOW, WALTER.

- A Collector on Melville Island, 316.

GORDON, SETON.

- Grey Lag Geese, 258.

GRANT-IVES, MISS.

- The Ornamental Pheasant Society, 334.

HAINES, J. E.

Importation of Birds, 312.

HANSELL, FRANK W.

An Easily Constructed Outdoor Aviary, 108.

Details for the Construction of an Outdoor Flight for Budgerigars, 241.

HINTON, THOMAS.

Notes on the Birds of St. James's Park, 124.

HOPKINSON, DR. E., C.M.G., D.S.O.

Breeding Results at Balcombe, 55.

Duck Hybrids, 78.

First Importation of the Carolina Duck, 162.

The Greenfinch in Captivity, 173.

Mr. Seth-Smith's Contributions to the Magazine, 184.

Records of Birds Bred in Captivity, 195.

Chaffinches and Bramblings in Captivity, 256.

Correction: Indigo Bunting \times Nonpareil Hybrids, 265.

Duck-Breeding Records, 280.

Reported Mannikin \times Canary Hybrids, 292.

Zebra Waxbill \times Cordon Bleu Hybrids, 293.

HOUSDEN, JAMES B.

Where Rolls the Rio Grande, 114.

LAMBERT, P. J.

The Ornamental Pheasant Society, 237.

MACKLIN, C. H., F.Z.S., M.R.C.S., L.R.C.P.

Breeding of the Royal Parrot Finch, 245.

MARTIN, A.

Hand Rearing of the King and Pennant Parrakeet, 258.

Breeding Results from The Nash, 301.

MAXWELL-JACKSON, MISS M.

The Parrot Ban, 196, 263, 314.

Bird Importation, 311.

MOODY, A. F.

The Dark Golden Pheasant, 57.

Rearing of a Red-and-Yellow Macaw at Lilford, 87.

MOORE, H., F.Z.S.

Arrival of Swallows, 161.

Importation of Birds, 311.

MORGANO, ROBERT D.

Waxbills, 264.

MORRISON, A.

The Genus *Sporophila*, 1, 43, 69, 116.

The Parrot Ban, 289.

NAETHER, PROFESSOR CARL.

Further Nesting Notes on Bronze-wing Pigeons, 151.

Breeding Activities of Foreign Doves, 260.

An Amateur Bird Photographer meets a Humming Bird Family, 325.

NICOL, HAMISH.

Feeding the Grey Parrot, 195.

PATTERSON, A. J.

Breeding the Painted Finch, 300.

PLATH, KARL.

The Red-and-Yellow Macaw, 265.

PORTER, SYDNEY, F.Z.S.

Notes on New Zealand Birds, 34.

Notes on Birds of Fiji, 90, 126, 164.

The Parrot Ban, 156.

Mice, 160.

Bermudian Notes, 218.

POTTER, S. D.

Some British Birds in New Zealand, 62.

POTTER, W. H.

Breeding the Linnet, 57.

QUINCEY, R. S. DE Q.

The Hardiness of a Humming-bird and Other Notes on Birds at the Vern, 139.

ROWE, WINSTON S.

Some Notes on Feeding, 60.

Notes from South Devon, 112.

The Indian Crested Bunting, 153.

SCHMIDT, P.

A Pheasant which should Have a Great Future, 19.

SCOTT-HOPKINS, CAPTAIN C.

My Pheasant Collection, 51.

SETH-SMITH, D., F.Z.S., M.B.O.U.

Mice in Aviaries, 212.

SEWELL, H. S.

Breeding the Painted Finch in Australia, 16.

The Painted Finch, 57.

Breeding the Dufresne Waxbill, 182.

Summary of Breeding Results in South Australia, 332.

SHAKESPEARE, W.

Breeding the Ceylon Bulbul, 238.

SHERRIFF, A., F.Z.S.

In a Hampstead Garden, 232.

SIBLEY, CLARENCE L.

Duck Hybrids, 118.

Breeding of the Whooper Swan, 149.

SPRAWSON, EVELYN, M.C., D.Sc.

Hard-hearted Hannah, 224.

STRANG, ALEX. R.

New Zealand Zosterops in their Native Country, 32.

SWAN, J. C.

Notes on a Voyage Home from Africa in the Winter, 177.

SWEETNAM, PREB. J. E.

The Evils of Mass Importation, and Some Suggested Remedies, 248.

Notes from a Somerset Aviary, 303.

TAVISTOCK, THE MARQUESS OF, F.Z.S.

Eye Disease in Parrakeets, 118.

Notes for 1935, 227.

Improper Importation, 291.

TEAGUE, P. W.

Danger in Dusty Sand, 149.

TIGAR, MRS. WHARTON.

Notes from a London Aviary, 21.

VENNER, REV. P. KINGSFORD.

Humane Aviculture, 290.

Waxbills in Summer, 292.

WAUD, CAPT. R., F.Z.S., M.B.O.U.

Breeding Results at Bradley Court, 286.

WEBB, C. S.

The Parrot Ban and the Future of Aviculture, 201, 336.

WILCOCK, JAMES.

Danger in Dusty Sand, 32.

WORKMAN, W. H., F.Z.S.; M.B.O.U.

Two Tame Birds, 66.

YEALLAND, H.

Hand-rearing of the White-capped Parrot, 11.

YEALLAND, J. J.

The Parrot Ban, 262.

LIST OF PLATES

*Morelet's Finch : Lineated Finch	<i>to face p.</i>	1
*Abyssinian Chiff-Chat	„	33
Two Stages in the Growth of the Young Blue-necked Crowned Crane.	„	59
North Island Robin	„	89
*Queen Alexandra's Parrakeet	„	119
*Waterfowl in St. James's Park	„	124
„ „ „	„ {	124
		125
Bronze-wing Pigeons	„	151
New Zealand Tomtit	„	163
*Rosy Twin-spot	„	197
Outdoor Aviary and Flight for Budgerigars (2)	„	241
Mr. Boosey's Planted Aviary at Keston	„	252
*Mombasa Collared Sun-bird	„	267
Cranes and Flamingoes at Bradley Court	„	288
Ducks, Flamingoes, and Cranes at Bradley Court	„	288
*The Plumhead Finch	„	315
Humming Birds (2)	„	326
„ „ (3)	„	326

* Denotes a coloured plate.

THE AVICULTURAL : SOCIETY :

FOR THE STUDY OF
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IN FREEDOM & CAPTIVITY

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1st JANUARY, 1935

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ALLEN, Miss GERALDINE RUSSELL; Dabenhall Hall, Northwich, Cheshire. (March, 1929.)

ALLEN, M. T., F.Z.S.; Ravenswood, Northwood, Middlesex. (March, 1925.)

ALLENBY, FIELD-MARSHAL THE VISCOUNT, G.C.B., G.C.M.G.; 24 Wetherby Gardens, S.W. 5. (Nov., 1922.)

ALLISON, N. G.; 3 Ashurst Gardens, Tulse Hill, S.W. 2. (July, 1931.)

AMSLER, MAURICE, M.B., F.Z.S.; Eton Court House, Eton, Windsor. (Dec., 1908.)

ANDERSON, ALISTAIR; Wardhead, Stewarton, Ayrshire. (June, 1923.)

APPLEBY, JOSEPH; Farnley, Great Crosby, Liverpool. (Oct., 1923.)

ARMOUR, Dr. M. D. S.; Crichton House, Anstruther, Fife. (Aug., 1932.)

ARNAU, JOSÉ JULIÁ (Ingeniero); Plaza Constitucion 15, Binisalem, Mallorca. (Jan., 1927.)

ARNOLD, EDWARD W. C.; Babylon, Long Island, N.Y., U.S.A. (April, 1928.)

ASHBY, Mrs. R. G.; Stanley Place, 34 Dalblair Road, Ayr. (Aug., 1932.)

ASTLEY, Mrs. HUBERT; Brinsop Court, Hereford. (Dec., 1901.)

BALFOUR, F. R. S.; 13 Collingham Gardens, S.W. 5. (Nov., 1932.)

BALMAIN, Miss MORA; Alford House, Castle Cary, Somerset. (June, 1930.)

BAMFORD, WILLIAM; Bridgecroft, Kent Road, Harrogate. (March, 1904.)

BANBURY, Major CECIL E.; Marden Hill, Hertford, Herts. (March, 1934.)

BANKS, GEOFFREY; 76 Thornhill Road, Streetly, Sutton Coldfield. (July, 1932.)

BANNERMAN, Mrs. DAVID; 7 Pembroke Gardens, W. 8. (April, 1928.)

BARCLAY, EVELYN W.; Whitwell Hall, Reepham, Norwich. (Aug., 1928.)

BARKER, Major G. H.; Holm Isla, St. Saviours, Jersey, C.I. (Feb., 1924.)

BARKER, Capt. N. L., O.B.E.; Cross Green, Otley, Yorkshire. (Dec., 1926.)

- BARLASS, J. C. ; Braxfield, St. Annes Road West, St. Annes-on-Sea. (March, 1934.)
- BARLOW, Mrs. ; 45 Bath Road, Swindon. (Sept., 1926.)
- BARNARD, T., M.C., F.Z.S. ; The Coppice, Eashing, Godalming, Surrey. (Sept., 1919.)
- BARR-SMITH, Mrs. ; Birkegate, Glen Osmond, South Australia. (Sept., 1926.)
- BARRY, DAVID, jun. ; 942 S. Ridgeley Drive, Los Angeles, California, U.S.A. (Jan., 1928.)
- BEDFORD, Her Grace the Duchess of, F.Z.S. ; Woburn Abbey, Woburn, Beds, and 15 Belgrave Square, S.W. 1. (Feb., 1903.) (*Vice-President.*)
- BEEVER, G. ; Brooklyn, Kirkheaton, Huddersfield. (June, 1923.)
- BENJAMIN, Mrs. ; Yarn Barton, West Chinnock, Crewkerne. (Dec., 1929.)
- BENSUADE, VASCO ; 153 Estrada da Luz, Lisbon, Portugal. (July, 1931.)
- BERESFORD-WEBB, G. M. ; Norbryght, South Godstone, Surrey. (May, 1906.)
- BIGGS, F. S. ; Greystone, Lansdowne Road, Luton, Beds. (June, 1934.)
- BLAAUW, F. E., F.M.Z.S., F.M.B.O.U. ; Gooilust, 's Graveland, Hilversum, Holland. (Nov., 1901.)
- BLACKBURN, FRANK ; 40 Mount Joy Road, Huddersfield. (April, 1929.)
- BLAIR, G. H., F.S.A.A. ; 71 Barton Arcade Chambers, Deansgate, Manchester 3. (Sept., 1932.)
- BLAIR, JAMES O'NEILL ; Achill, Harberton Park, Belfast. (April, 1934.)
- BLAND, Mrs. G. L. ; The Little House, Wellesbourne, Warwick. (July, 1929.)
- BLAY, G. ; The Manor House, Ditton Hill, Surbiton, Surrey. (May, 1934.)
- BONESTELL, Mrs. C. H. ; 2610 Mountain Boulevard, Oakland, California, U.S.A. (Jan., 1933.)
- BOOSEY, E. J. ; Brambletye, Keston, Kent. (Feb., 1921.)
- BOTT, WILLIAM ; Gwent, Walton-by-Clevedon, Somerset. (Dec., 1928.)
- BOURKE, Hon. Mrs. ALGERNON ; 75 Gloucester Place, Portman Square, W. 1. (Feb., 1911.)
- BOUSFIELD, Miss ; Hazelgrove, Lymington Road, New Milton, Hants. (Jan., 1908.)
- BOWER, ROBERT ; Husheath Manor, near Goudhurst, Kent. (July, 1931.)
- BOYD, F. ; 255 North Road, Anlaby Road, Hull. (Dec., 1934.)
- BOYLE, JOHN ; The Farm House, Shirburn, Watlington, Oxon. (Jan., 1929.)
- BRACEY, B. O. ; 907 Bundy Drive, Los Angeles, California, U.S.A. (Nov., 1934.)
- BRADSHAW, GEORGE ; 54 Ingram Road, Wahroonga, Sydney, Australia. (May, 1927.)
- BROADWATER, C. C. ; 27 Highland Avenue, Piedmont, California, U.S.A. (March, 1932.)
- BROCK, A. E. ; St. Just, Exeter. (Dec., 1929.)
- BRODRICK, A. R. ; 12 Frognall Gardens, Hampstead, N.W. 3. (Aug., 1934.)
- BROOKES, Miss F. C. ; Massam Hall, Old Leake, Boston. (July, 1933.)
- BROOKSBANK, ALEC ; Brambletye, Keston, Kent. (Jan., 1928.)
- BROOKSON, J. ; 27 Kenton Park Parade, Kenton, Harrow. (Oct., 1934.)
- BROWN, E. J. ; 37 Dean Road, Bitterne, Southampton. (March, 1931.)

- BROWN, F., Shalimar, 92 Wokingham Road, Reading. (Jan., 1934.)
BROWN, W. FERRIER; 10 Ebers Road, Nottingham. (May, 1924.)
BROWNING, WILLIAM H.; 103 Park Avenue, New York, U.S.A. (March, 1906.)
BRUNTON, J. W.; Inveresk Lodge, Musselburgh. (June, 1923.)
BRYAN, MRS. A. H.; P.O. Box 414, Balboa Heights, Canal Zone, Isthmus of Panama. (Jan., 1928.)
BUCHANAN, A.; Viewbank, 33 Townhill Road, Dunfermline. (Dec., 1928.)
BURN, Lady; Rydal Mount, Potters Bar, Middlesex. (Oct., 1932.)
BUTLER, ARTHUR LARCHIN, M.Aust.O.U.; Lower Sandy Bay, Hobart, Tasmania. (July, 1905.)
- CAIRNS, Hon. D. H.; Carnach, Nairn. (Nov., 1930.)
CAMBESSEDES, J.; 18 Boulevard Arago, Paris 18e. (Sept., 1934.)
CAMPEY, A. D.; 117 Grovehill Road, Beverley, Yorks. (Jan., 1933.)
CAPERN, F.; Lewin's Mead, Bristol. (Oct., 1907.)
CAPRON, C. NEWTON; 90 Midland Avenue, Montclair, N.J., U.S.A. (Sept., 1934.)
CARR-WALKER, HERBERT; Almsford House, Fulwith Lane, Harrogate. (June, 1917.)
CARLISLE, MELVILLE; P.O. Onderstepoort, Pretoria, South Africa. (March, 1930.)
CASE, MRS. ALICE M.; Barncroft, Eastergate, Chichester, Sussex. (May, 1918.)
CHAMBERS, F. G.; The Beeches, Barlaston, Stoke-on-Trent. (Aug., 1932.)
CHANNER, Miss M.; Webbery, near Bideford, N. Devon. (Rejoined.)
CHAPLIN, E. W.; The Hearne, Great Amwell, Ware, Herts. (Sept., 1903.)
CHAPLIN, The Hon. ANTHONY; Greenacre, Balcombe, Sussex. (July, 1932.)
(*Editor.*)
CHAPLIN, Lady DRUMMOND; Noord Hoek, Cape Province, South Africa. (Rejoined.)
CHAPMAN, G. B., F.Z.S.; 24 Tottenham Court Road, London, W. (Nov., 1922.)
CHAWNER, Miss, F.Z.S.; The White House, Leckford, Stockbridge, Hants. (July, 1899.)
CHICHESTER, Mrs.; Galgorm Castle, Ballymena, Co. Antrim, Ireland. (April, 1930.)
CHILD, F. R.; Braemar, Down's Road, Luton, Beds. (March, 1920.)
CHRISTIE, Mrs. G.; Kellas, By Elgin, Morayshire. (Jan., 1913.)
CLARK, G. H.; 28 Elm Grove, Orpington, Kent. (June, 1932.)
CLEMO, J.; 18 Claremont Road, Redruth, Cornwall. (Oct., 1927.)
COATES, Sir EDWARD CLIVE, Bart.; 14 Sussex Square, W. 2. (June, 1929.)
COLES, CLIFFORD; 16 Bancroft Avenue, Roseville, N.S.W., Australia. (July, 1929.)
COLHOUN, Major J., M.C.; St. Elmo, Shantallow, Londonderry, Ireland. (March, 1929.)
COLLIN, HARRY A.; Tynrodyn, Bangor, North Wales. (May, 1928.)
COLLINGS, Miss C.; Woodlands, 125 Harrow-dene Road, Wembley. (Nov., 1932.)
COLTHURST, Mrs. E. V.; The Copse, Wraxall, Somerset. (June, 1931.)

- COOPER, Mrs. H. VICTOR ; Villa d'Este, Burgess Road, Thorpe Bay, Essex.
 COOPER, JAMES ; Cayton, Scarborough. (*Orig. Mem.*)
 COTTERELL, RICHARD ; Garnons, Hereford. (April, 1928.)
 COWLEY, H. ; The Manor House, Bubbenhall, Coventry. (Jan., 1926.)
 COWPER, Dr. C. M. ; Manor House, Leighton Buzzard. (July, 1933.)
 COWPER, G. St. JOHN ; Rachel Lodge, Apollo Bunder, Bombay. (June, 1933.)
 COX, Miss B. ; Marshwood Manor, Bridport, Dorset.
 CRAIGE, Mrs. LYDIA ; Red Cottage, Brunswick Road, Douglas, Isle of Man. (Nov., 1934.)
 CRISP, Major JOHN ; Moram House, Old Windsor, Windsor. (Nov., 1934.)
 CROFTS, ROBERT T. ; The Aviaries, Reeves Avenue, Cross Heath, Newcastle, Staffs. (April, 1929.)
 CROWTHER, CHARLES ; 25 St. James' Road, Ilkley. (June, 1934.)
 CUNNINGHAM, Dr. F. H. L. ; "Rahere," High Street, Chesham, Bucks. (April, 1931.)
 CURA, L., & SONS ; Bath Court, Warner Street, Rosebery Avenue, E.C. 1. (Sept., 1928.)
 CURRIE, J. ; 54 Netherby Road, Edinburgh, 5. (Aug., 1915.)
 CURTIS, Mrs. ; Caynham Court, Ludlow. (Sept., 1931.)
- DALRYMPLE, Mrs. A. M. ; address unknown.
 DANCOISNE, Abbé H. ; Curé de Canaples, Canaples (Somme), France. (July, 1932.)
 DARLING, P. STORMOUTH ; Blackwood, Fulmer, Bucks. (June, 1928.)
 DARTON, Mrs. ; Sissinghurst Court, Cranbrook, Kent. (April, 1932.)
 DAVIS, GODFREY, I.C.S., F.Z.S. ; 4 Robin Grove, Westhill, Highgate, N. 6. (Aug., 1927.)
 DAVIS, MALCOLM ; 904 11 S.E., Washington, D.C., U.S.A. (March, 1934.)
 DAWSON, Mrs. ; The Oaks, Great North Road, Welwyn. (March, 1934.)
 DE PASS, GERALD V. ; The Kennels, Satwell, near Henley-on-Thames. (April, 1930.)
 DE PLEDGE, Miss BERYL ISABEL ; 9 Beaufort House, Beaufort Street, Chelsea, S.W. 3.
 DEBONO, P. P., M.D., F.R.C.S.(Eng.) ; 8 Windsor Terrace, Sliema, Malta. (June, 1930.)
 DECOUX, A. ; Géry-près Aix, Hte. Vienne, France. (April, 1917.)
 DELACOUR, JEAN, F.Z.S. ; Clères, Seine Inf., France. (April, 1916.)
 DELL, CHARLES ; Ferndale, Moss Lane, Pinner, Middlesex. (July, 1900.)
 DENLEY, C. F. ; Winden, Brookville Pike, Rockville Md., U.S.A. (Jan., 1927.)
 DENNIS, Mrs. CYRIL ; Oakley Hall, Market Drayton, Salop. (June, 1920.)
 DENNIS, Mrs. H. E. ; Holme Manor, Pulborough, Sussex. (March, 1903.)
 DENNY, Mrs. HENRY, C.B.E., Staplefield Place, Staplefield, Sussex. (May, 1924.)
 DENT, Mrs. ; The Vinery, Bury St. Edmunds. (Jan., 1934.)
 DICKSON, Miss V. C. ; Lea Croft, Crawley, Sussex. (Oct., 1927.)
 DIEMONT, D. E. H. ; Rynvliet, Oudenryn, Holland. (June, 1927.)
 DIRECTOR, THE ; Zoological Museum, Tring, Herts. (1912.)

- DOOLY, THOMAS L. S. ; Whimbrel, Kirklake Road, Formby, near Liverpool. (Jan., 1924.)
- DRAKE, Mrs. K. ; Carrick Cottage, Mylor, Falmouth, Cornwall. (Dec., 1926.)
- Rt. Hon. NORAH, Lady DUNLEATH, Shanes Castle, Antrim, Northern Ireland. (Aug., 1897.)
- DUNMORE, OSCAR E. ; 22 Kingsway Road, Leicester. (Oct., 1922.)
- DUNN, Mrs. C. T. M. ; The Nash, Kempsey, near Worcester. (Aug., 1932.)
- DUNS福德, Miss E. M. ; The Nash, Kempsey, near Worcester. (April, 1933.)
- DUNSTER, Captain J. E. ; 34 Kensington Gardens Square, W. 2. (July, 1930.)
- DUVEEN, Mrs. ; Broadway, Limpsfield, Surrey. (Sept., 1927.)
- DUYZEND, W. C. ; Koppelwig 151, Huize, "Casarca," Zeist, Holland. (March, 1927.)
- EALLES, Miss B. C. ; 10 Glenhurst Road, Brentford, Middlesex. (Jan., 1935.)
- ECKWORTH, Mrs. ; 155 Stephenson Avenue, Toronto, Canada.
- EDWARDS, Mrs. A. E. ; Three Elms, Kippington, near Sevenoaks, Kent. (Jan., 1925.)
- ELLIOTT, F. S. ; 31 Kelvin Road, Ipswich, Suffolk. (Nov., 1925.)
- ELPHICK, GEORGE ; 118 Harley Street, W. 1. (April, 1926.)
- ELWES, Mrs. ROBERT ; Little Congham, King's Lynn, Norfolk. (Dec., 1926.)
- ENDTZ, A., M.D. ; Loosduinen, 369 Haagweg, Holland. (Oct., 1932.)
- ENGLISH, W. L., M.B. ; High Street, Haslington, Crewe. (Oct., 1931.)
- ENGELBACH, Docteur PIERRE, Kampot, Cambodge, Indochine.
- ESSEX, Countess of ; Old Manor House, Wingrave, Aylesbury. (April, 1933.)
- EVANS, C. E. H. ; 86 High Street, Hornchurch, Essex. (July, 1933.)
- EVANS, JAMES ; Elton Grove, Darlington. (April, 1934.)
- EVANS, Miss JOAN ; 8 South Eaton Place, S.W. 1. (Jan., 1929.)
- EVANS, R. M. ; Inglewood, Ratcliffe Road, Leicester. (March, 1927.)
- EUSTACE, C. H. ; c/o P.O. Box 252, Shanghai, China. (Feb., 1927.)
- EZRA, ALFRED, O.B.E., F.Z.S., M.B.O.U. ; (*President*), Foxwarren Park, Cobham, Surrey. (1912.)
- EZRA, Sir DAVID, Kt., F.Z.S., M.B.O.U. ; 3 Kyd Street, Calcutta, India. (June, 1912.)
- FABIAN, CYRIL ERIC ; 29 Meadowcroft Road, Palmers Green, N. 13. (March, 1930.)
- FERGUSON, A. B. ; 22 Duke Street, Kilmarnock. (April, 1931.)
- FETHERSTONHAUGH, Mrs. ; The Rosery, Exning, Newmarket, Cambs. (April, 1930.)
- FIELD, Mrs. NORMAN ; Lartington Hall, Lartington, Yorkshire. (June, 1933.)
- FILLMER, H. R. ; Oakfield, Hurst Road, Hassocks, Sussex. (*Orig. Mem.*)
- FOOK, H. A. ; 14 Ballygunge Park, Calcutta, India. (Jan., 1932.)
- FOOKS, F. G. ; c/o Mon. J. Delacour, Chateau de Clères, Seine Inférieure, France. (Jan., 1926.)
- FRAYNE, RALPH ; 28 Bramworth Road, Hexthorpe, Doncaster. (May, 1933.)
- FREEMAN, A. J. E. ; 244 Hills Road, Cambridge. (Jan., 1935.)

- FROST, WILFRED ; c/o Zoological Society, Regent's Park, N.W. 8. (July, 1908.)
- FROSTICK, JOHN ; 303 High Road, Streatham Common, S.W. 16. (April, 1933.)
- FURNER, A. C. ; Oakdene, Whitaker Road, Derby. (Oct., 1929.)
- GAMBLE, Miss KATHLEEN A. ; 31 Roundwood Way, Banstead, Surrey. (March, 1930.)
- GANGULI, S., C.M.Z.S. ; Superintendent Zoological Gardens, Alipore, Calcutta, India. (June, 1931.)
- GARCKE, Mrs. C. ; Ditton House, Near Maidenhead. (June, 1916.)
- GARGINI, G. ; The Bull's Head Hotel, Aylesbury, Bucks. (June, 1933.)
- GARRATT, M. R. ; District Forester, Smithton, Tasmania. (June, 1934.)
- GARRETT, ROBERT ; Lannevan, Knock, Belfast. (April, 1933.)
- GIBBINS, WILLIAM B., F.Z.S. ; Ettington, near Stratford-on-Avon. (June, 1895.) (*Hon. Mem.*)
- GLADSTONE, HUGH, M.A., F.Z.S., F.R.S.E., F.S.A.Scot. ; Capenoch, Thornhill, Dumfriesshire. (Dec., 1932.)
- GLEDHILL, HAROLD ; Mayfield, Argomeols Road, Freshfield, near Liverpool. (March, 1934.)
- GLENISTER, A. G., F.Z.S., M.B.O.U. ; The Barn House, East Blatchington, Seaford. (June, 1928.)
- GLOVER, PERCY H. ; Broadlands, Fareham, Hants. (June, 1931.)
- GODDARD, H. E. ; Birchcroft, Fetcham, near Leatherhead. (Feb., 1899.)
- GODDARD, Mrs. ; Fernham House, Faringdon, Berks. (Feb., 1923.)
- GOLDER, H. G., F.Z.S. ; Hon. Secretary and Treasurer Norwich Alliance All England C.B.d., 37 Crown Road, Norwich. (June, 1931.)
- GOODALL, A. W. ; 29 Weston Crescent, Runcorn, Cheshire. (March, 1933.)
- GOSSE, Mrs. JAMES ; 9 Park Terrace, Park Side, South Australia. (July, 1923.)
- GRAINGER, Capt. LIDDELL ; Ayton Castle, Ayton, Berwickshire. (Aug., 1927.)
- GRAY, HENRY, M.R.C.V.S. ; 85 Earls Court Road, W. 8. (June, 1906.)
- GREED, R. E. ; Superintendent, Zoological Gardens, Clifton, Bristol 8. (Jan., 1933.)
- GREEN, H. BAREHAM ; The Godlands, Maidstone, Kent. (June, 1930.)
- GROVES, Hon. Mrs. McGAREL ; Battramsley House, Lymington, Hants. (March, 1917.)
- GRUNZIG, B. FRANK ; 38 Livingstone Avenue, Avenel, New Jersey, U.S.A. (Jan., 1933.)
- GUBBAY, Mrs. MAURICE ; 30 Hill Street, Berkeley Square, W. 1. (Feb., 1928.)
- GULBENKIAN, C. S. ; 51 Avenue d'Jéna, Paris xvi^e Paris. (Dec., 1908.)
- GURNEY, DANIEL ; The Grange, North Runceton, King's Lynn. (July, 1927.)
- GURNEY, Miss DIANA ; North Runceton Hall, King's Lynn. (July, 1927.)
- HACHISUKA, The Marquess. ; Mita Shiba, Tokyo, Japan. (July, 1932.)
- HAGGIE, Mrs. E. M. ; Endcliffe Crescent, Sheffield. (Jan., 1934.)
- HALL, F. ; Dalkeith, 42 Chantry Road, Moseley, Birmingham. (March, 1934.)
- HALL, T. WALTER ; 6 Gladstone Road, Sheffield. (Nov., 1926.)

- HAMERTON, Col. A. E., C.M.G., D.S.O.; 1 Park Village West, Regent's Park, N.W. 1. (Dec., 1930.)
- HAMPE, ALEX.; c/o Mrs. Hillmann, Luisenallee, 8, Koenigsberg 1, Preussen, Germany. (Jan., 1927.)
- HANKEY, ALGERNON A., F.Z.S.; 71 Lissenden Mansions, Highgate Road, N.W. 5. (June, 1923.)
- HANSELL, FRANK A. D.; The Croft, Muthill, Perthshire. (May, 1925.)
- HARMAN, Miss KNOBEL, F.Z.S.; 27 Grosvenor Street, Grosvenor Square, W. 1. (Sept., 1928.)
- HARRINGTON, T. J. S.; 8 Ealing Park Gardens, Ealing, W. 5. (Jan., 1933.)
- HARVEY, P. T.; Farleigh, 170 King's Road, Westcliff-on-Sea, Essex. (Nov., 1926.)
- HASTINGS, P. H.; Locksway Road, Milton, Southsea. (March, 1930.)
- HATHERTON, The Lady; Hatherton Hall, Cannock, Staffs. (June, 1933.)
- HEAL, C. H.; Stanley Villa, Paulton, Somerset. (Sept., 1932.)
- HEBB, THOMAS; Croft House, Old Aylestone, Leicester. (April, 1914.)
- HENDERSON, Miss OONA; Greystones, St. Mawes, Cornwall. (Sept., 1934.)
- HINE-HAYCOCK, A. L.; Kittery Court, Kingswear, Devon. (Aug., 1932.)
- HIGHAM, WALTER E., F.R.P.S., F.R.G.S., F.Z.S., M.B.O.U.; The Oaks, Clayton-le-Dale, near Blackburn, Lancs. (Jan., 1934.)
- HIRST, ALBERT; 10 Talbot Avenue, Egerton, Huddersfield. (July, 1923.)
- HIRST, ARNOLD; P.O., Box 262 DD, Sydney, N.S.W., Australia. (April, 1929.)
- HIRST, ROBERT S.; Swincliffe House, Gomersal, near Leeds. (Rejoined.)
- HOLDEN, The Lady; Wiganthorpe, York. (March, 1934.)
- HOLLAS, Mrs. K. E.; Red Scar, Grimsargh, near Preston. (Oct., 1922.)
- HOLLOND, Miss GLADYS M. B.; 5 Norfolk Crescent, Hyde Park, W. 2. (March, 1930.)
- HOLROYD, GEORGE E., F.Z.S., M.B.O.U.; Cardrona, Baildon, Yorkshire. (May, 1933.)
- HOLT, Miss ESTHER; Axholme, Noctorum, Birkenhead, Cheshire. (Jan., 1934.)
- HOPKINS, W. E., F.Z.S.; 6 Queen Street, Scarborough. (July, 1933.)
- HOPKINSON, EMILIUS, C.M.G., M.A., M.B.Oxon., D.S.O., F.Z.S.; Wynstay, Balcombe, Sussex. (Oct., 1906.)
- HOPSON, FRED C.; Porchester, Newbury. (March, 1897.)
- HORNE, DOUGLAS PERCY; 95 Oxford Gardens, W. 10. (Sept., 1928.)
- HORNER, Miss D.; Riccall, York. (Aug., 1931.)
- HORSBRUGH, C. B.; Blessington House, Hillsborough, Co. Down.
- HOUSDEN, Major E. F., M.C.; 126 Bessborough Road, Harrow, N. (Jan., 1934.)
- HOUSDEN, Major E. J. T., M.C.; Royal Artillery Mess, Fenham Barracks, Newcastle-upon-Tyne, Northumberland. (Jan., 1934.)
- HOUSDEN, JAMES B.; Brooklyn, 31 Cator Road, Sydenham, S.E. 26. (*Orig. Mem.*)
- HOUSDEN, Dr. LESLIE; Caldecotts, Church Square, Basingstoke, Hants. (March, 1933.)
- HUCKLE, Mrs. K. E.; The Bungalow, 14 Park Lane, Salisbury. (Jan., 1928.)
- HÜE, FRANÇOIS; Grange des Prés par Pézenas (Hérault), France. (July, 1934.)

- HUMPHRIES, WALTER JOHN ; 32 Cedric Road, Crumpsall, Manchester, 8. (Feb., 1931.)
- HUNT, NORMAN ; Tudor Lodge, Station Road, Harpenden, Herts. (March, 1934.)
- HUTCHINSON, Miss ALICE ; address unknown. (Aug., 1907.)
- IMPARATI, Dr. Prof. EDOARDO ; Ravenna, Italy. (Jan., 1932.)
- IRVINE, W. J. ; 36 Ann Street, Belfast. (June, 1926.)
- IRVINE, Mrs. CHISTINE ; Blakeway, Allport Road, Bromborough, Cheshire. (March, 1930.)
- ISENBERG, A. H. ; 286 Atherton Road, Menlo Park, Calif., U.S.A.
- JABOUILLE, M. P. ; Gouvernement de la Cochinchine, Saigon, French Indo-China. (Feb., 1927.)
- JARVIS, Miss I. F. ; The Old Manor, Salisbury. (Aug., 1930.)
- JEFFERSON, Miss D. D. ; Rivermead, Combe-in-Teignhead, Newton Abbot, S. Devon. (May, 1932.)
- JENNISON, GEORGE, M.A., F.Z.S. ; Barwick Lodge, Disley, Cheshire. (April, 1918.)
- JOHNSON, F. ; Downham Tavern, Bromley, Kent. (Jan., 1933.)
- JOHNSTON, ROBERT PERCY ; West House, Wigton, Cumberland. (March, 1925.)
- JONES, F. T. ; Peover Eye, Lower Peover, near Knutsford, Cheshire. (Oct., 1933.)
- JONES, H. ; 146 Victoria Street, Blackburn, Lancs. (Jan., 1932.)
- JONES, S. B. ; Plemont, Higher Road, Halewood, Liverpool. (Sept., 1934.)
- JONES, W. A. ; 54 Stockwell Park Road, S.W. 9. (Feb., 1933.)
- KANGIESER, Henry F., jr. ; Menlo Oaks Drive, Menlo Park, Calif., U.S.A. (May, 1933.)
- KEATOR, BEVERLY, R.F.D. ; 12 Westport, Conn., U.S.A. (June, 1924.)
- KEKEWICH, Mrs. PIER ; Caleb's Brook, Kirdford, near Billingshurst, Sussex. (July, 1934.)
- KEMP, ROBERT ; 5 Rose Hill, Lostwithiel, Cornwall. (March, 1926.)
- KERR, J. ERNEST ; Harviestoun, Dollar, Scotland. (March, 1927.)
- KEWLEY, Mrs. M. A. ; Old Court House, Whitchurch, Aylesbury, Bucks. (Sept., 1910.)
- KILNISTER, E. A. ; Eildon Road, Brisbane, Queensland, Australia. (July, 1934.)
- KINGHAM, A., J.P., F.Z.S. ; Rounton, Mascotwood Road, Watford, Herts. (Nov., 1934.)
- KINGWELL, Miss FRANCES ; Beechfield, S. Brent, S. Devon. (June, 1929.)
- KISNER, BARNETT ; 999 Finchley Road, Golders Green, N.W. 11. (Nov., 1933.)
- KLAASEN, WM. ; c/o Holland-America Line, 120 Market Street, San Francisco, Calif., U.S.A. (Jan., 1932.)
- KNIGHT, RONALD D. ; 144 Knighton Church Road, Leicester. (March, 1932.)
- KNOBEL, Miss E. MAUD, F.Z.S., M.B.O.U. ; 86 Regents Park Road, N.W. 1. (Aug., 1916.) Hon. Mem. (*Hon. Secretary and Treasurer*).

- KUNTZ, P.; 289 Edmonton Street, Winnipeg, Manitoba, Canada. (May, 1930.)
- LAIDLAY, J. C.; Lindores, Fife, Scotland. (April, 1929.)
- LAMBERT, PAUL; Nawton, Yorkshire. (Sept., 1929.)
- LANGHAM, Sir CHARLES, Bart.; Tempo Manor, Co. Fermanagh, Ireland. (July, 1932.)
- LAUDER, P.; c/o Hong Kong and Shanghai Banking Corporation, 9 Gracechurch Street, E.C. 3.
- LAW, Dr. SATYA CHURN, F.Z.S., M.B.O.U., M.A., B.L., Ph.D.; 50 Kailas Bose Street, Calcutta. (1919.)
- LAX, J. M. S.; Southfield, Crook, Co. Durham. (Jan., 1930.)
- LEACH, C. F.; Vale Lodge, Leatherhead, Surrey. (June, 1914)
- LEGENDRE, M.; 25 Rue La Condamine, 17E, Paris. (June, 1928.)
- LEIGH-SMITH, Miss N.; Crotestei, Headley Down, Borden, Hants. (Jan., 1934.)
- LEMP, EDWIN A.; Cragnold, Kirkwood, Missouri, U.S.A. (March, 1929.)
- LESLIE, CLEMENT M.; 22 Meadowside, Dundee. (Jan., 1932.)
- LESSE, MAURICE DE; Villa "L'oustalet", Parc Santa Lucid, Saint Raphaël, Var, France. (Jan., 1933.)
- LEWIS, E. H.; Box 192, Avalon, Catalina Island, California, U.S.A.. (Sept., 1928.)
- LEWIS, Colonel F. E. C.; The Inadown Game Farm, Newton Valence, Alton, Hants. (Rejoined.)
- LEWIS, J. SPEDAN, F.Z.S.; Leckford Abbyss, Stockbridge, Hants. (Sept., 1924.)
- LIBRARY INTERNATIONAL INSTITUT D'AGRICULTURE, Villa Umberto I. Rome, 10.
- LIGHTFOOT, J. G.; The Gables, Upton Heath, Chester. (May, 1927.)
- LILFORD, The Lady; Lilford Hall, Oundle, Northants. (Jan., 1898.)
- LINCOLN, E. R. W.; c/o *Cage Birds*, Dorset House, Stamford Street, S.E. 1. (July, 1932.)
- LITTLEDALE, Mrs.; Moorend Park, Charlton Kings, Cheltenham. (Rejoined.)
- LLOYD, Major E. G. R., D.S.O.; Tour, Kilmaurs, Ayrshire. (June, 1934.)
- LLOYD, Mrs.; Greenmore Hill, Woodcote, nr. Reading. (Jan., 1928.)
- LOCKEY, R.; Creighton House, Morpeth. (July, 1927.)
- LODGE, GEORGE, E., F.Z.S., Hawkhouse, Park Road, Camberley, Surrey. (May, 1923.)
- LONGDON, Mrs. C. A.; Arreton, Epsom Road, Guildford. (Feb., 1909.)
- LONGUEVILLE, Mrs.; The Sheriffs, Lyonshall, Hereford. (May, 1934.)
- LOSKEY, R. F.; Chiclayo, Perú. (Jan., 1930.)
- LOVELACE, The Countess of; Wentworth House, Chelsea Embankment, S.W. 3. (May, 1906.)
- LOWE, Rev. J. R.; The Vicarage, Coln St. Aldwyn, Fairford, Glos. (June, 1927.)
- LUPTON, Miss E. M.; Beechwood, Elmete Lane, Roundhay, Leeds. (Aug., 1933.)
- LYNDE, Dr. ROY; Ellendale, North Dakota, U.S.A. (June, 1931.)
- LYON, Capt. the Hon. MICHAEL; Glamis Castle, Glamis, Forfarshire. (May, 1927.)

- McCANCE, DAVID ; Strand Town, Belfast. (July, 1932.)
- McCORQUODALE, Mrs. ; Cound Hall, Shrewsbury. (Jan., 1920.)
- McCULLAGH, CRAWFORD ; Lismara, White House, Belfast, Northern Ireland. (June, 1930.)
- McCUTCHAN, WILLIAM A. ; 18 Selby Lane, Menlo Park, California, U.S.A. (Oct., 1931.)
- MACK, WILLIAM ; 26 Wasley Street, Mt. Lawley, Western Australia. (Feb., 1931.)
- MACKIE, PHILIP C. ; Tudor Cottage, Orville Gardens, Headingley, Leeds. (Jan., 1926.)
- MACKLIN, C. H., M.R.C.S., L.R.C.P., F.Z.S. ; 23 Church Street, Amptill, Beds. (May, 1923.)
- McMILLAN, ARNOLD Dr. ; Ivy House, New Romney, Kent. (March, 1930.)
- McLINTOCK, Miss M. H. ; The Grove, Catton Grove Road, Norwich. (July, 1927.)
- MAIRAUX, E. (Ingénieur Agronome I.A.G.) ; 41 Rue de la Ruche, Bruxelles, Belgium. (July, 1929.)
- MALONE, Mrs. M. L'ESTRANGE ; West Lodge, Malton, Yorks. (Dec., 1931.)
- MANCHESTER PUBLIC LIBRARIES ; Charles Nowell, F.L.A. (Chief Librarian), Central Library, St. Peter's Square, Manchester 2. (July, 1913.)
- MANSBRIDGE, Captain H. ; Gellibrands, Chalfont St. Peter, Bucks. (July, 1933.)
- MANWARING, Mrs. ; Crossway, Knole Paddock, Sevenoaks, Kent. (Jan., 1933.)
- MARESI, POMPEO M. ; 36 W. 9 Reimer Road, Scarsdale, New York, N.Y., U.S.A. (June, 1924.)
- MARSDEN, J. W., F.Z.S. ; Greylands, Lower Heysham, Lancs. (March, 1914.)
- MARSHALL, ARCHIBALD McLEAN, F.Z.S. ; 6 Warrior Square Terrace, St. Leonards-on-Sea. (Jan., 1906.)
- MARTEN, L. H., O.B.E., F.Z.S. ; Tilton, near Battle, Sussex. (June, 1930.)
- MARTIN, A. ; The Nash, Kempsey, near Worcester. (Oct., 1930.)
- MARTIN, F. ; Boltro Road, Haywards Heath, Sussex. (July, 1933.)
- MARTINDALE, GERALD ; The Marlton Aviaries, near Paignton, S. Devon. (Jan., 1933.)
- MASON, Miss EVA INGLIS ; Peppercorn Cottage, Burton, Christchurch, Hants. (Aug., 1934.)
- MATSUNAGA, YASUMORI ; Kashima-Machi, Fujigun, Shizuoka-ken, Japan. (March, 1928.)
- MAXWELL, C. T. ; 1 Shardcroft Avenue, Herne Hill, S.E. 24. (Dec., 1908.)
- MAXWELL, P. H. ; Ebberley Hill, St. Giles, near Torrington, N. Devon. (Oct., 1929.)
- MAXWELL-JACKSON, Miss M. ; Percy House, Scotton, Knaresborough, Yorks. (Jan., 1913.)
- MAYER, F. W. SHAW ; Wulfruna, 88 Concord Road, Homebush, Sydney, Australia. (Aug., 1922.)
- MAYNARD, C. GORDON ; Springfield, Northaw, Potters Bar, Herts. (Aug., 1928.)
- MELVILL, Mrs. E. G. ; Orchard House, Mount View, Ruxley Heights, Claygate, Surrey. (Jan., 1934.)
- MIDDLEMOST, H. EDWIN ; Foxholme, Birchencliffe, Huddersfield. (Dec., 1934.)

- MIDDLETON, John ; 121 Heath Road, Uttoxeter. (Jan., 1934.)
- MILLER, S. P. ; Northend, Gloucester Road, Teddington.
- MINTMAN, Dr. D. ; 138 Stoke Newington Road, N. 16. (Aug., 1932.)
- MITCHELL, Mrs. E. W. ; Rosetiles, Le Touquet (Pas de Calais), France. (Dec., 1933.)
- MITCHELL, Mrs. ; Postlip Hall, Winchcombe, Glos. (May, 1933.)
- MOODY, A. F. ; Lilford, Barnwell, Peterborough. (July, 1926.)
- MOORE, H. ; Chapel Road, Tadworth, Surrey. (July, 1928.)
- MOORE, ROBERT T. ; Room 120, Throop Hall, Pasadena, California, U.S.A. (July, 1928.)
- MORRISON, A. ; The Oaks, Paddockhall Road, Haywards Heath, Sussex. (Jan., 1928.)
- MOSS, Mrs. W. E. ; The Manor House, Sonning-on-Thames, Berks. (March, 1928.)
- MOTT, B. ; 11 Wheelleys Road, Edgbaston, Birmingham. (Rejoined.)
- MOUNTAIN, Capt. WALTON ; Groombridge Place, Kent. (Feb., 1923.)
- MOYSER, E. H. ; 25 Manor Road, Darlington. (Jan., 1934.)
- MULLICK, JITENDRO, F.Z.S. ; Marble Palace, Calcutta, India. (Aug., 1933.)
- MURPHY, JOHN (District Commissioner) ; Kipini, Tana River, Kenya Colony. (Oct., 1932.)
- NAETHER, Professor CARL ; 4442 Woodman Avenue, Van Nuys, California, U.S.A. (June, 1934.)
- NELSON, RICHARD, 735 Holderness Road, Hull. (April, 1925.)
- NEWILL, Dr. D. S. ; 402 First National Bank Building, Connellsville, Pa., U.S.A. (Oct., 1930.)
- NEWMAN, T. H., F.Z.S., M.B.O.U. ; Verulam, 46 Forty Avenue, Wembley Park, Middlesex. (May, 1900.)
- NEWMARCH, C. T., F.Z.S. ; Gamage's Ltd., Holborn, W.C. (Aug., 1915.)
- NICHOLAS, B. MELVILLE ; Nancegollan, Helston, Cornwall. (Feb., 1934.)
- NICHOLSON, ALFRED E. ; Blenheim, Forthview Terrace, Blackhall, Edinburgh. (Feb., 1925.)
- NICHOLSON, NORMAN. ; Edenvale, Weardale Place, Grange Estate, Stockton-on-Tees. (Feb., 1931.)
- NICOL, HAMISH, F.R.C.S., F.Z.S. ; Hillside, Christchurch Road, Hampstead, N.W. 3. (Jan., 1926.)
- NIGHTINGALE, F. B., F.R.I.B.A. ; 73 Albert Bridge Road, S.W. 11. (Dec., 1933.)
- NORCROSS, HERBERT ; Normanhurst, Mount Road, Middleton, Lancs. (March, 1930.)
- NORRIS, H. M. ; Lowood, 17 View Road, Highgate, N. 6. (Oct., 1931.)
- OBERHOLSER, HARRY C. ; 2805 18th Street, N.W. Washington, D.C., U.S.A. (Oct., 1903.)
- OGLIVIE, Mrs. BRENDA ; Bonaly Tower, Colinton, Midlothian. (May, 1927.)
- ORR, Mrs. G. I. ; Westfield, West Heath Road, Hampstead, N.W. 3. (April, 1934.)
- OSTREHAN, CLEMENT ; Kington Rectory, Worcester. (Jan., 1928.)
- OTAKI, T. ; 48 Pembroke Road, Seven Kings, Essex. (Rejoined.)

- PALMER, G. E., F.Z.S.; 83 Park Street, Camden Town, N.W. 1. (March, 1926.)
- PAM, Major ALBERT, F.Z.S.; Wormleybury, Broxbourne, Herts. (Jan., 1906.)
- PARKER, WINDSOR D.; Clopton Hall, Woolpit, Suffolk. (March, 1930.)
- PARTRIDGE, W. R.; Larches, near Fladbury, Pershore, Worcestershire. (April, 1934.)
- PATRICK, LEON, M.D.; Smith Grote Building, Orange, California U.S.A. (Dec., 1926.)
- PATTERSON, A. J.; Ripon, Ruxley Lane, Ewell. (Jan., 1933.)
- PATTON, J. V.; Hollister, California, U.S.A. (Oct., 1930.)
- PEARSE, Mrs.; Channel View, Bembridge, Isle of Wight. (Rejoined.)
- PEART, Miss; Edgarley, Broomfield Avenue, Palmers Green, N. 13. (March, 1927.)
- PEERS, Edgar R.; Lee Cottage, South Nutfield, Surrey. (Rejoined Jan., 1932.)
- PEMBLETON, THOMAS; Sudbury Aviaries, 120 Watford Road, Wembley, Middlesex. (March, 1930.)
- PETERSON, Mrs.; Applehill, Kelling, near Holt, Norfolk. (July, 1929.)
- PHILLIPS, Dr. JOHN C.; Wenham, Mass., U.S.A. (March, 1910.)
- PICKFORD, RANDOLPH JOHN; Etherley Lodge, Nr. Bishop Auckland. (Feb., 1903.)
- PIERRE, Mrs. LILLIAN C.; Hotel Pierre, Fifth Avenue and 61st Street, New York City, U.S.A. (April, 1932.)
- PIKE, L. G., F.Z.S.; King Barrow, Wareham, Dorset. (1912.)
- PITT, W. S.; Southdene, Walton-on-Thames, Surrey. (March, 1934.)
- PLATH, KARL; 2847 Giddings Street, Chicago, U.S.A. (July, 1924.)
- POLTIMORE, Lady; Court Hall, North Molten. (Jan., 1926.)
- PORT, Miss J.; Twisly, Catsfield, Battle, Sussex. (Oct., 1928.)
- PORTER, SYDNEY, F.Z.S.; The White Gates, Stenson Road, Derby. (April, 1920.)
- POTTER, Dr. A. RADFORD; Church Square, Basingstoke, Hants. (July, 1934.)
- POTTER, BERNARD E., M.B., M.R.C.S., L.R.C.P., F.Z.S.; 17 Portland Place, W. (Mar., 1914.)
- POTTER, W. H.; Whetherill, Fitzillian Avenue, Harold Wood, Essex. (July, 1926.)
- PRINCETON UNIVERSITY LIBRARY; U.S.A.
- PYCRAFT, W. P., A.L.S., F.Z.S., M.B.O.U., etc.; British Museum (Nat. Hist.), Cromwell Road, S.W.7. (Nov., 1904.) (*Hon. Mem.*)
- PYMAN, Miss E. E.; West House, West Hartlepool. (June, 1919.)
- QUINCEY, R. S. DE Q.; The Vern, Bodenham, Hereford. (April, 1913.)
- REEVE, Capt. J. S., F.Z.S.; Leadenham House, Lincoln. (March, 1908.)
- REVENTLOW, AXEL; Zoological Garden, Kobenhavn F., Denmark. (Jan., 1928.)
- RICHARDS, H.; 22 Southgate, Redruth, Cornwall. (March, 1929.)
- RIEVELEY, JOHN W.; St. Oswald's Gate, Fulford, York. (June, 1929.)
- RISDON, D. H. S.; Oakdene, Downham Avenue, Northwood, Middlesex. (Jan., 1934.)

- ROBERTS, Miss IDA ; Beaumaris, Montpelier Street, Hobart, Tasmania. (Jan., 1923.)
- ROBINSON, Miss ELSIE ; Oatlands, Camberley, Surrey. (Sept., 1929.)
- ROBINSON, JOHN H. ; 23 Cavendish Street, Ramsgate. (Sept., 1927.)
- ROGERS, H. E., F.Z.S. ; Zoological Park, Emswood Road, Mossley Hill, Liverpool. (June, 1919.)
- ROGERS, Col. J. M., D.S.O., F.Z.S., M.B.O.U. (late Royal Dragoons) ; Riverhill, Sevenoaks. (April, 1907.)
- ROOPER, Mrs. F. ; 11 Maze Hill, St. Leonard's-on-Sea. (Aug., 1924.)
- ROTHSCHILD, JAMES DE ; 46 Park Street, W. 1. (March, 1923.)
- ROTHSCHILD, LIONEL DE ; 18 Kensington Palace Gardens. (Nov., 1913.)
- ROUSE, R. F. ; Mountlands, 64 Westfield Road, Edgbaston, Birmingham. (Nov., 1932.)
- ROWE, WINSTON S. ; St. Lawrence, Lansdown Road, Torquay. (Jan., 1934.)
- ROY, ANANTO KUMAR ; 59 Upper Chitpore Road, Calcutta, India. (March, 1934.)
- ROYSTON, Mrs. R. C. ; Kibore, Sotik, Kenya. (Jan., 1932.)
- RUDDIN, FRANCIS H. ; R.I., Box 31, Fillmore, California, U.S.A. (May, 1929.)
- RUMSEY, LACY ; 23 Rua de Serpa Pinto, Villa Nova de Gaya, Oporto, Portugal. (April, 1919.)
- RUSHWORTH, Mrs. CYNTHIA ; Beechfield, Walton-on-Thames, Surrey. (Aug., 1932.)
- RYAN, B. J. ; Executive Engineer, P.W.D., Jaipur State, Rajputana, India. (Aug., 1926.)
- RYAN, G. E. ; 6 Stanhope Terrace, W. 2. (June, 1931.)
- RYCROFT, Mrs. ; Stratton Rise, Cirencester, Glos. (Oct., 1927.)
- SALTER, FRANK H. ; 5 The Crescent, Scarborough. (April, 1930.)
- SCHÜTZE, EDUARD ; Humboldestr. 25, Kassel, Germany. (Feb., 1927.)
- SARABHAI, AMBALAL ; The Retreat, Shahibagh, Ahmedabad, India. (Jan., 1934.)
- SCHMIDT, PAUL ; Senta, Yugoslavia. (March, 1934.)
- SCHUYL, D. G. ; Kralingscheweg 332, Rotterdam, Holland. (Jan., 1914.)
- SCLATER, W. L., M.A., F.Z.S. ; 10 Sloane Court, S.W.3. (Aug., 1904.)
- SCOTT, A. H. ; Blissford Pool, Fordingbridge, Hants. (March, 1934.)
- SCOTT, C. B. ; Whitton, New South Wales, Australia. (Aug., 1932.)
- SCOTT-HOPKINS, Capt. C. ; Low Hall, Kirby Moorside, Yorks. (July, 1928.)
- SELSDON, ANNE Lady ; 203 Knightsbridge, W. 1. (Aug., 1934.)
- SEPPINGS, Lieut.-Col. J. W. H., F.Z.S. ; c/o Lloyd's Bank, Ltd., Cox & King's Branch (K. Section), 6 Pall Mall, London, S.W. 1. (Sept., 1907.)
- SETH-SMITH, DAVID, F.Z.S., M.B.O.U. ; Zoological Society, Regent's Park, N.W.8. (Dec., 1894.) Hon. Mem.
- SEYMOUR, Mrs. ; Kilbers Farm, Winkfield, Windsor. (Rejoined.)
- SHAKESPEARE, WALTER ; Sefton, St. George's Hill, Weybridge. (Aug., 1926.)
- SHEARING, A. P. ; The Aviaries, Foxwarren Park, Cobham, Surrey. (Dec., 1931.)

- SHERBROOK, WILLIAM ; The Old Vicarage, Tadworth, Surrey. (April, 1931.)
- SHERRIFF, A., F.Z.S. ; Edge Hill, 8 Ranulf Road, N.W. 2. (March, 1923.)
- SIBLEY, C. L. ; Sunnyfields Farm, Wallingford, Conn., U.S.A. (Jan., 1934.)
- SILVER, ALLEN, F.Z.S. ; 18 Baneswell Road, Newport, Mon.
- SIMPSON, ARCHIBALD ; Stone Gappe, Bardsey, Yorks. (Feb., 1901.)
- SIMPSON, H. W. ; 6 Barry Road, Stonebridge, Willesden, N.W. 10. (Nov., 1924.)
- SIMSON, Capt. RUPERT, O.B.E. ; Rickham, Bray, Berkshire. (July, 1932.)
- SISSONS, H. P. ; 8 Potter Street, Worksop, Notts. (April, 1927.)
- SLADE, G. J. ; Shenley, 21 Wilton Crescent, Southampton. (Feb., 1915.)
- SMITH, A. ST. ALBAN, F.Z.S. ; Peradin Estate, Pontian, Johore, Malaya. (Feb., 1929.)
- SMITH, Mrs. D. N. ; The Friars, Rye Close, West Worthing. (June, 1934.)
- SMITH, H. B. ; 3 Claremont Road, Redruth, Cornwall. (Oct., 1927.)
- SMITH, PAUL H. ; 11 Parkhill Road, Hampstead, N.W. 3. (June, 1927.)
- SMITH, W. PROCTOR, F.Z.S. ; Moorlands, Broad Road, Sale, Manchester. (Nov., 1917.)
- SMITH, Mrs. WIKOFF ; Morris Avenue, Bryn Mawr, Penna, U.S.A. (Jan., 1935.)
- SMITH, WILLIAM RALPH ; 28 Tindale Road, Artarmon, N.S.W., Australia. (Nov. 1934.)
- SNELL, Mrs. NORRIS ; Redcote, Paget Road, Ipswich. (Feb., 1928.)
- SOUTHOFF, GEORGE DE, C.M.Z.S. ; 9-11 Via S. Spirito, Florence, Italy. (1921.) (*Hon. Mem.*)
- SOUTHPORT CORPORATION, CURATOR OF ; Hesketh Park, Southport. (Jan., 1904.)
- SOWDEN, NORMAN ; Kirklands, Menston, near Leeds. (Feb., 1930.)
- SPALDING, Mrs. KEITH ; 90 South Oak Knoll Avenue, Pasadena, California, U.S.A. (July, 1929.)
- SPENCER, HENRY ; Yew Court, Scalby, Yorkshire. (Sept., 1928.)
- SPICER, Dr. G. EVAN ; Fifield House, St. Albans, Herts. (Feb., 1933.)
- SPRAWSON, EVELYN ; M.C., D.Sc., M.R.C.S., F.Z.S., Cranford, Welcomes Road, Kenley, Surrey. (June, 1923.)
- SPURWAY, N. B. ; Glenwood, Stoneygat, Leicester. (April, 1923.)
- STALLARD, P. J. ; Bryanston, Blandford, Dorset. (Sept., 1934.)
- STARK, J. ; Woods Cottage, Haddington, Scotland. (Jan., 1924.)
- STEPHENS, JOHN ; Kingswood Chase ; Hindhead, Surrey. (Sept., 1932.)
- STERRETT, H. R. ; 67 York Road, Paignton, S. Devon. (Rejoined.)
- STEVENS, NOEL ; Chapel Farm, Elmley Castle, Pershore, Worcestershire. (Aug., 1934.)
- STEVENS, RONALD ; Chapel Farm, Elmley Castle, Pershore, Worcestershire. (Feb., 1932.)
- STEWART, JOHN ; The Hermitage, Elstead, Surrey. (Rejoined.)
- STIGAND, Mrs. PEARSALL ; Antica Casa Colonica, 19 Via Augusto Baldesi, San Gervasio, Florence, Italy. (Dec., 1932.)
- STILEMAN, GERALD R. ; 8A Florence Road, Southsea. (Rejoined Feb., 1932.)
- STOKES, Capt. H. S., F.Z.S., M.B.O.U., M.C. ; Longdon, Rugeley, Staffordshire. (Oct., 1922.)

- STROMBI, Miss DORA A. ; East Bank House, Brechin, Angus. (April, 1930.)
- SUGGITT, ROBERT ; Suggitt's Lane, Cleethorpes, Grimsby. (Dec., 1903.)
- SUMMERSKILL, C. C. ; 19 Alma Road, Winton, Bournemouth. (March, 1925.)
- SWAN, J. C. ; Clare Lodge, Witley, Surrey. (Nov., 1933.)
- SWEETNAM, Rev. J. E. ; The Vicarage, Taunton. (Feb., 1931.)
- SYKES, JOHN ; Home Park Poultry Farm, Musselburgh, Midlothian. (Jan., 1912.)
- SYMES, IVER T. J. ; Bridge House, Tadley, Hants. (July, 1930.)
- TAKA-TSUKASA, PRINCE NOBUSUKE, F.Z.S. ; 1732 Sanchome, Kamimeguro, Meguro-ku, Japan. (Feb., 1914.)
- TALBOT-PONSONBY, C. G. ; Glebe House, Lindfield, Hayward's Heath, Sussex. (May, 1927.)
- TANNER, Dr. FRANK L. ; Vanvert House, Guernsey. (Jan., 1914.)
- TARONGA ZOOLOGICAL PARK TRUST ; Mosman, Sydney, Australia. (Aug., 1913.)
- TAVISTOCK, The Marquess of, F.Z.S. ; The Place House, Peasmarsh, Rye, Sussex. (1912.)
- TAYLOR, F. W., J.P. ; 34 West Sunnyside, Sunderland. (April, 1933.)
- TEAGUE, P. W. ; The Knoll, Kilpeck, near Hereford. (June, 1930.)
- TENNANT, Hon. STEPHEN ; Wilsford Manor, Salisbury, (April, 1926.)
- THEOBALD, E. W. W. ; 1 Bushey Mill Lane, Watford, Herts. (July, 1934.)
- THOM, ALFRED A. ; Whitewell Lodge, Whitechurch, Salop. (June, 1913.)
- THOMAS, F. E. ; "Edendale," Creswick Road, Springfield Park, Acton, W. 3. (Oct., 1931.)
- THOMASSET, BERNARD C., F.Z.S. ; Seend, Near Melksham, Wilts. (July, 1896.)
- THOMSON, Dr. ; Bankstown, near Sydney, Australia. (Jan., 1926.)
- THOMPSON, Mrs. A. C. ; Glaisdale, Ely, Cambs. (Dec., 1924.)
- THOMPSON, Capt. G. W. ; Ardwell, Steel Cross, Crowborough. (March, 1930.)
- THORNTON, JOHN ROBERT ; Picture House Chambers, 4 Thornton Road, Bradford. (July, 1930.)
- THORPE, D. LOSH, M.B.O.U., F.Z.S. ; The Aviaries, Loshville, Etterby Scaur, Carlisle. (Aug., 1930.)
- TODD, HORATIO, J.P., M.P.S.I., F.C.S. ; Bromleigh, Neill's Hill, Belfast. (Aug., 1924.)
- TOWNSEND, T. A. ; Sherwood Nurseries, Clipstone Road, Mansfield, Notts. (Jan., 1935.)
- TRANSVAAL MUSEUM ; The Director, Transvaal Museum, Pretoria. (Jan., 1921.)
- TRAVERS, Mrs. J. ; Windmill Cottage, Mayfield, Sussex. (Dec., 1903.)
- TUMA, F. L. ; Riegrovo nab 34, Prague 2, Czechoslovakia. (May, 1933.)
- TURNER, A. GEOFFREY ; Hungerford Park, Berks. (July, 1934.)
- TURNER, H. B. ; Malverleys, near Newbury. (April, 1928.)
- TURNER, WALTER, 476 Pitt Street, Sydney, N.S.W.
- TYEBJEE, ABDE AMIRUDDIN SHALEBHOY ; Little Gibb's Road, Malabar Hill, Bombay. (Sept., 1934.)
- TYSER, Mrs. ; Dudbrook, near Brentwood, Essex. (Jan., 1934.)
- UPPINGHAM SCHOOL ; the school library, the Old School House, Uppingham. (Nov., 1920.)

- VALENTINE, ERNEST ; 7 Highfield, Workington. (May, 1899.)
- VAN HEYST, A. F. C. A. ; Westersingel 68, Rotterdam, Holland. (March, 1934.)
- VENNER, Rev. P. K. ; Gosfield Vicarage, Halstead, Essex. (April, 1923.)
- VENNING, H. C. ; Willett, Bicknaller, Taunton. (Jan, 1927.)
- VEREY, Mrs. A. FLORENCE ; Hare Hollow, Middleton, Bognor Regis. (June, 1934.)
- VIERHELLER, GEO. P. ; St. Louis Zoological Park, St. Louis, Mo., U.S.A. (March, 1928.)
- VOIGT, WALTER ; 13, Feodorastrasse, Jena, Germany. (Jan., 1926.)
- VROOM, Mrs. DOUGLAS E. ; 555 South Wilton Place, Los Angeles, California, U.S.A. (Rejoined.)
-
- WADE-GERY, Mrs. M. ; Bushmead Priory, near Bedford. (May, 1934.)
- WALKER, Miss H. K. O. ; Chesham, Bury, Lancs. (Feb., 1895.)
- WATKINS, T. R. HOLMES ; Shirley, Griffithstown, Monmouthshire. (May, 1932.)
- WATSON, Miss ; Field Burcote, Towcester. (Jan., 1933.)
- WATSON, A. D. ; c/o Feather Hill Ranch, 1595 East Valley Road, Santa Barbara, California, U.S.A. (June, 1930.)
- WAUD, Capt. L. REGINALD, F.Z.S., M.B.O.U. ; Bradley Court, Chieveley, near Newbury. (May, 1913.)
- WAXMAN, A. E. WRIGHT DE BERRI ; Maitai, Murray Road, Beecroft, N.S.W.
- WEBB, C. S. ; Thirlmere, Beachborough Villas, Shorncliffe Road, Folkestone, Kent. (March, 1928.)
- WEBB, PATRICK B. ; Barney's Brae, Randalstown, Co. Antrim, N. Ireland. (Aug., 1929.)
- WESTMACOTT, Captain G. R., D.S.O. ; Rodwell Farm, near Lewes, Sussex. (Feb., 1933.)
- WESTMACOTT, Lady ; Hotel Vendôme, Place Vendôme, Paris, 1^e. (Dec., 1928.)
- WHARTON-TIGAR, Mrs. N., F.Z.S. ; 67 Haverstock Hill, Hampstead, N.W. 3. (July, 1932.)
- WHITBURN, Mrs. ; Amport, St. Mary's, Andover, Hants. (July, 1934.)
- WHITE, JOHN YORK ; Chasceley, 22 Willett Way, Petts Wood, Kent. (Jan., 1925.)
- WHITLEY, HERBERT, F.Z.S. ; Primley Hill, Paignton, S. Devon. (Sept., 1923.)
- WHITTINGHAM, W. NEVILLE ; Stonefall Hall, near Harrogate. (Feb., 1928.)
- WILCOCK, JOHN, B.A., M.B.O.U. ; Hill Crest, Weston Coyney, Stoke-on-Trent. (April, 1931.)
- WILDEBOER, Dr. H. G. ; Burnbrae, Holderness Road, Hull. (1924.)
- WILKINS, A. ; Rendcombe, Chesham, Bucks. (April, 1930.)
- WILKINSON, Mrs. ; The Hollies, Royston, Herts. (Oct., 1932.)
- WILLIAMS, SIDNEY, F.Z.S. ; 19 Beechdale, Winchmore Hill, N.21. (Oct., 1910.)
- WILLIAMSON, T. F. M. ; 339 McGee Avenue, Mill Valley, California, U.S.A. (Aug., 1917.)
- WILSON, AND., F.Z.S. ; 233 Argyle Street, Glasgow. (April, 1927.)
- WILSON, Mrs. MAITLAND ; Blackdown House, Deepcut, near Aldershot.

- WILSON-JONES, Mrs. KATHLEEN ; Lanivet, near Bodmin, Cornwall. (Jan., 1934.)
- WINTER, DWIGHT ; Center and Negley Avenue, Pittsburgh, Pa., U.S.A. (1922.)
- WOLF, M. W. ; c/o Wolf Zoo, Dresden N., Albert Platz 10. (Rejoined.)
- WOOD, Dr. CASEY, F.Z.S. ; McGill University Library, Montreal, Canada. (Sept., 1922.)
- WOOD, Miss ELLEN ; Nokhroy, 27 Scott's Avenue, Shortlands, Kent. (Aug. 1933.)
- WOOD, Mrs. MURIEL ; 8 Lambolle Road, N.W. 3. (July, 1927.)
- WOODCOCK, GEORGE ; Bingwood, Hillside, Green Curve, Banstead, Surrey. (Jan., 1933.)
- WORKMAN, WILLIAM HUGHES, F.Z.S., M.B.O.U. ; Lismore, Windsor Avenue, Belfast. (May, 1903.)
- WRIGHT, R. N. ; 24 Clinton Road, Redruth, Cornwall. (Feb., 1930.)
- YEALLAND, JOHN ; The Place House, Peasmarsh, Sussex. (July, 1934.)
- YOUNGER, Major CHARLES ARTHUR JOHNSTON (Retired) ; Green Walls, Rake Hanger, near Lyss, Hants. (July, 1932.)
- YOUNGER, Mrs. CHARLES ; Green Walls, Rake Hanger, near Lyss, Hants. (Feb., 1932.)
- ZOOLOGICAL SOCIETY OF PHILADELPHIA ; 34th Street, and Girard Avenue, Philadelphia, Penn., U.S.A. (Jan., 1920.)
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THE AVICULTURAL SOCIETY OF VICTORIA

LIST OF AFFILIATED MEMBERS

- BICKERTON, HUGH ; 6 Hopetoun Road, Toorak, S.E. 2, Melbourne, Victoria.
 CLENDINNEN, Dr. L. J. ; (*Hon. Secretary*) ; 105 Collins Street, Melbourne, C. 1, Victoria.
 DAVIES, Dr. F. L. ; High Street, Malvern, S.E. 3, Melbourne.
 DONALD, Dr. B. P. ; Wanacknabeal, Victoria, Australia.
 GILPIN, O., 50 Finch Street, East Malvern, S.E. 5, Melbourne.
 JACQUES, ALAN ; Balwyn Road, Balwyn, E. 8, Melbourne.
 McPHERSON, W. E. ; 43 Mount Albert Road, Canterbury, E. 7, Victoria, Australia.
 MOORE, — ; 375 Upper Heidelberg Road, Ivanhoe, Victoria, Australia.
 NIALL, K. M. ; 125 William Street, Melbourne, C. 1, Victoria, Australia.
 NICHOLAS, A. M. ; 5 Harcourt Street, Auburn E., Melbourne.
 PICKING, DOUGLAS (*President*) ; Dromana, Victoria.
 SMEAL, Dr. J. A. ; 3 Moonga Road, Toorak, S.E. 2, Melbourne.
 TUCKER, E. R. ; Rosebank, Canterbury Road, Blackburn, Victoria.
 YOUNG, J. T. ; 11 Howitt Street, Caulfield, S.E. 7, Melbourne, Victoria, Australia.

THE AVICULTURAL SOCIETY OF SOUTH AUSTRALIA
(ADELAIDE)

LIST OF AFFILIATED MEMBERS

- BARNARD, H. G. ; Hindmarsh Building, Hindmarsh Square, Adelaide, South Australia.
 BASSE, FREDERICK, 29 Dutton Terrace, Medinde, Adelaide, South Australia.
 BENN, J. E. ; 2 Laureate Street, Pt. Pirie West, South Australia.
 BENNETT, C. E. ; Park Terrace, Parkside, South Australia.
 COLES, D. ROSS ; 138 Alexandra Avenue, Toorak, South Australia.
 DUNSTONE, Dr. ; Woodville Road, Woodville, Adelaide, South Australia.
 HAGLEY, S. V. ; Renmark, South Australia.
 HAMILTON, Dr. WM. ; Wakefield Street, Adelaide, South Australia.
 HARVEY, S. (*Hon. Secretary*) ; St. Austell, Burnside Road, Kensington Gardens, Adelaide, South Australia.
 KITCHEN, F. C. ; P.O., Box 16B, Broken Hill, N.S.W., Australia.
 LEWIS, G. ; c/o A. & E. Lewis, Pirie Street, Adelaide, South Australia.
 LIENAU, C. H. A. ; Newbury, 23 Victoria Avenue, Unley Park, South Australia.
 MINCHIN, R. ; Zoological Gardens, Adelaide, South Australia.
 PENNEY, W. K. ; "Mount Cooper," Anzac Highway, Plympton, Adelaide, South Australia.
 SEWELL, H. S. ; 140 Grant Avenue, Toorak, Adelaide, South Australia.
 SHEPHERD, Rev. H. E. G. ; Waikerie, South Australia.
 WHITE, A. L. ; Chisholm Avenue, Erindale, Adelaide, South Australia.

THE AVICULTURAL SOCIETY OF WESTERN AUSTRALIA

LIST OF AFFILIATED MEMBERS

HIGHNAN, H. V. (*Secretary*); Dawne, 6 Karoo Street, South Perth, Western Australia.

THE AVICULTURAL SOCIETY OF NEW ZEALAND

LIST OF AFFILIATED MEMBERS

- AINSWORTH, A.; 7 Samoa Street, Kilbirnie, Wellington, N.Z.
 ALLEN, W.; Helensville South, N.Z.
 ANDERSON, A.; St. John's Hill, Wanganui, N.Z.
 ANDERSON, Mrs. E.; Roseberry Poultry Farm, Birkenhead, Auckland, N. 5, N.Z.
 ARBURY, J. W.; (P.O. Box 23) Pollen Road, Thames, N.Z.
 Auckland City Council; Mr. GRIFFIN, Representative, Auckland War Memorial Museum, Auckland, S.E. 1, N.Z.
 BATTEN, E. R. L.; (Surgeon Dentist) Broadway, Stratford, N.Z.
 BLACK, J. W.; P.O. Box 102, Dunedin, N.Z.
 BLAKEY, H. P.; Dentist, Broadway, Newmarket, Auckland, S.E. 1, N.Z.
 BULL, H. B. J.; 1 Erin Street, One Tree Hill, Auckland, S.E. 3, N.Z.
 BULLOCK, Mrs. E.; 6 Clifton Road, Hamilton, Waikato, N.Z.
 CAMPBELL, Mrs. J. P. (*President*); 16 Arney Road, Remuera, Auckland, S.E. 2, N.Z.
 COLLINS, Mrs. G.; 433 South Road, New Plymouth, N.Z.
 CORBET, G. M. (*Vice-President*); P.O. Box 183; Invercargill, N.Z.
 COURT, JOHN, LTD.; Queen Street, Auckland, C. 1, N.Z.
 COUSIN DAVIE, Dr. P.; Cnr. Robe and Powderham Streets, New Plymouth, N.Z.
 CROWTHER, W. J.; Remuera Road, Remuera, Auckland, N.Z.
 CRUICKSHANK, R.; 9 Westbourne Road, Remuera, Auckland, S.E. 2, N.Z.
 DANBY, S. L.; Pollen Street, Thames, N.Z.
 DIXON, H.; Stratford Borough Council, Stratford, Taranaki, N.Z.
 EDMUNDS, H. E.; P. O. Box 396, Palmerston North, N.Z.
 EDWARDS, HOWARD (Dental Surgeon); Wanganui, N.Z.
 EWEN, Mrs. A.; 618 Cargill Road, Dunedin, N.Z.
 EWENS, Mrs. J. F.; Remuera Road, Remuera, Auckland, S.E. 2, N.Z.
 FIELD, A. E.; Stoke, Nelson, N.Z.
 FORSTER, ROBT.; 401 Hastings Street, Hastings, H.B., N.Z.
 FRITH, A.; Hinau Street, Frankton Junction, N.Z.
 GARDENER, GEO.; 39 Ellesmere Avenue, Miramar, Wellington, N.Z.
 GILBERT, A. E. R.; P.O. Box 34, New Plymouth, N.Z.
 GILFILLAN, Mr. S. E.; 3 Muritai Road, Takapuna, Auckland, N. 2, N.Z.
 HENLEY, A. E.; 66 Victoria Street, Auckland, C. 1, N.Z.
 HOLDEN, L.; 29 Wapiti Avenue, Epsom, Auckland, S.E. 3., N.Z.
 HUGHES, Miss K.; Jubilee Private Hotel, Currie Street, New Plymouth, N.Z.
 HUTCHINSON, G. ROLAND (*Hon. Secretary and Treasurer*); 5 Keith Avenue, Remuera, Auckland, S.E. 2, N.Z.

- IRONMONGER, A. L. ; Waiuku, N.Z.
 JONASSEN, N. ; Pollen Street, Thames, N.Z.
 JONES, Mrs. E. ; 337 Victoria Street, Hamilton, N.Z.
 JUST, A. W. ; 30 College Street, W., Palmerston N., N.Z.
 KINLEY, WM. ; c/o Northcote Vehicular Ferry Office, Beaumont Street, Freeman's Bay, Auckland, C. 1, N.Z.
 LUCAS, Mrs. N. O. ; Woodlands Road, Glen Eden, Auckland, N.Z.
 MAINLAND, A. ; 29 Hollywood Avenue, Mt. Roskill, Auckland, S.E. 3, N.Z.
 MARTIN, J. T. ; c/o Box 24, Bluff, N.Z.
 MAYZE, Miss M. ; Matron, Mental Hospital, Auckland, W. 3, N.Z.
 MCKAY, D. ; P.O. Box 53, New Plymouth, N.Z.
 MCNEILL, CHAS. ; Devon Street, New Plymouth, N.Z.
 NATHAN, Mrs. CHAS. ; 19 Arney Road, Remuera, Auckland, S.E. 2, N.Z.
 OSBORNE, E. J. ; 11 Airedale Street, Auckland, C. 1, N.Z.
 OSBORNE, J. S. ; 6 Brougham Avenue, Wellington, N.Z.
 PARKER, Mrs. T. ; 1 Oakley Road, Hamilton, Waikato, N.Z.
 PASCOE, J. ; Thames Road, Paeroa, N.Z.
 POLLARD, F. ; Police Station, Henderson, Auckland, N.Z.
 PORTER, E. ; 4 Arney Crescent, Remuera, Auckland, S.E. 2, N.Z.
 POTTER, S. D. ; "Ideal Dairy," Remuera Road, Remuera, Auckland, S.E. 2, N.Z.
 PRATT, DOUGLAS ; Sharpe Road, Epsom, Auckland, S.E. 3, N.Z.
 PRISCOTT, JOHN ; Hood Street, Hamilton, Waikato, N.Z.
 REID, GEO. ; "Grassington," Rotherham, North Canterbury, N. 2, N.Z.
 RICHARDSON, R. S. S. ; Eliot Street, New Plymouth, Taranaki, N.Z.
 ROBERTSON, D. ; Oak Quick Lunch Ltd., Dixon Street, Wellington, N.Z.
 SMITH, JAS. ; 5 Dunbar Road, Mt. Eden, Auckland, S. 2, N.Z.
 SPENCER, Mrs. L. C. ; 11 Dilworth Avenue, Remuera, Auckland, S.E. 2, N.Z.
 STARR, D. ; 11 Avon Street, Frankton Junction, N.Z.
 STRANG, ALEX R. ; Frankleigh Park, New Plymouth, N.Z.
 SUTHERLAND, Mrs. B. ; Homewood Avenue, Karori, Wellington, N.Z.
 TATTERSFIELD, F. ; "Puriri Puke," Allendale Road, Mt. Albert, Auckland, S.E. 2, N.Z.
 TAYLOR, F. G. ; P.O. Box 26, Kaiapoi, Canterbury, N.Z.
 THOMSON, Mrs. H. M. ; P.O. Box 152, New Plymouth, N.Z.
 THORBURN, R. L. ; 51a Victoria Avenue, Remuera, Auckland, S.E. 2, N.Z.
 VERRAN, J. ; Hauraki Road, Birkenhead, Auckland, N. 5, N.Z.
 WADHAM, P. ; Chudleigh Estate, Waihou, Te Aroha, N.Z.
 WALKER, Mrs. C. ; Beach Road, Te Horo, Wellington, N.Z.
 WALLACE, GEO. ; Mersey Street, Gore, N.Z.
 WALTERS, L. A. ; Manaia, Taranaki, N.Z.
 WATSON, E. J. ; P.O. Box 131 (8 Wood Street), Palmerston North, N.Z.
 WELSON, R. ; Kerepechi Hotel, Kerepechi, Hauraki Plains, N.Z.
 WHITNEY, GREY ; 21A Victoria Avenue, Remuera, Auckland, S.E. 2, N.Z.
 WILSON, Master C. M. ; 23 Portland Road, Remuera, Auckland, S.E. 2, N.Z.
 WOOD, BRETT ; Randolph Downs, Amberley, Christchurch, N.Z.
 YOUNG, H. G. ; 24 Firth Street, Hamilton East, Waikato, N.Z.
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Rules of the Avicultural Society

As amended, November, 1930

1.—The name of the Society shall be THE AVICULTURAL SOCIETY, and its object shall be the study of Foreign and British Birds in freedom and in captivity. Poultry, Pigeons, and Canaries shall be outside the scope of the Society. The year of the Society, with that of each volume of the Society's Magazine, which shall be known as the AVICULTURAL MAGAZINE, shall commence with the month of January and end on the 31st of December following.

2.—The Avicultural Society shall consist of Ordinary and Honorary Members, and the latter shall be restricted in number to six, and be elected by the Council.

3.—The Officers of the Society shall be elected, annually if necessary, by members of the Council in the manner hereinafter provided, and shall consist of a President, one or more Vice-Presidents, a Secretary, an Editor, a Treasurer, an Auditor, a Scrutineer, and a Council of eighteen members. The Secretary, Editor, and Treasurer shall be *ex officio* Members of the Council.

4.—New Members shall be proposed in writing, and the name and address of every person thus proposed, with the name of the Member proposing him, shall be published in the next issue of the Magazine. Unless the candidate shall, within two weeks after the publication of his name in the Magazine, be objected to by at least two Members, he shall be deemed to be duly elected. If five members shall lodge with the Secretary objections to any candidate he shall not be elected, but the signatures to the signed objections must be verified by the Scrutineer. If two or more Members shall object to any candidate, the name of such candidate shall be brought before the Council at their next meeting, and the Council shall have power to elect or to disqualify him from election.

5.—Each Member shall pay an annual subscription of £1, to be due and payable in advance on the 1st of January in each year. New Members shall pay, in addition, an entrance fee of 10s. ; and, on payment of their entrance fee and subscription, they shall be entitled to receive all the numbers of the Society's Magazine for the current year.

6.—Members intending to resign their membership at the end of the current year of the Society are expected to give notice to the Secretary before the 1st of December, so that their names may not be included in the "List of Members", which shall be published annually in the January number of the Magazine.

7.—The Magazine of the Society shall be issued on or about the first day of every month, and forwarded, post free, to all the Members who shall have paid their subscriptions for the year ; but no Magazine shall be sent or delivered to any Member until the annual subscription shall have reached the hands of the Business Secretary or the Publishers. Members whose subscriptions shall not have been paid as above by the first day in November in any year shall cease to be Members of the Society, but may be re-admitted, at the discretion of the Council, on payment of the annual subscription.

8.—The Secretary, Editor, and Treasurer shall be elected for a term of five years, and, should a vacancy occur, it may be temporarily filled up by the Executive Committee (see Rule 10). At the expiration of the term of five years in every case it shall be competent for the Council to nominate the same officer, or another Member, for a further time of five years, unless a second candidate be proposed by not less than twenty-five Members of at least two years' standing, as set forth below.

In the November number of the Magazine preceding the retirement from office of the Secretary, Editor, or Treasurer, the Council shall publish the names of those members whom they have nominated to fill the vacancies thus created ; and these members shall be deemed duly elected unless another candidate or candidates be proposed by not less than fifteen Members of at least two years' standing. Such proposal, duly seconded and containing the written consent of the nominee to serve, if elected, in the capacity for which he is proposed, must reach the Secretary on or before the 15th of November.

The Council shall also publish yearly in the November number of the Magazine the names of those members nominated by them for the posts of Auditor and Scrutineer respectively.

9.—The Members of the Council shall retire by rotation, two at the end of each year of the Society (unless a vacancy or vacancies shall occur otherwise) and two other Members of the Society shall be recommended by the Council to take the place of those retiring. The names of the two Members recommended shall be printed in the November number of the AVICULTURAL MAGAZINE. Should the Council's selection be objected to by fifteen or more Members, these shall have power to put forward two other candidates, whose names, together with the signatures of no less than fifteen Members proposing them, must reach the Hon. Secretary by the 15th of November. The names of the four candidates will then be printed on a voting paper and sent to each Member with the December number of the Magazine, and the result of the voting published in the January issue. Should no alternative candidates be put forward, in the manner and by the date above specified, the two candidates recommended by the Council shall be deemed to have been duly elected. In the event of an equality of votes the President shall have a casting vote.

If any Member of the Council does not attend a meeting for two years in succession the Council shall have power to elect another member in his place.

10.—Immediately after the election of the Council that body shall proceed to elect three from its Members (*ex officio* Members not being eligible). These three, together with the Secretary, Treasurer, and Editor, shall form a Committee known as the Executive Committee. Members of the Council shall be asked every year (whether there has been an election of that body or not) if they wish to stand for the Executive, and in any year when the number of candidates exceeds three there shall be an election of the Executive.

The duties of the Executive Committee shall be as follows :—

(i) To sanction all payments to be made on behalf of the Society.

(ii) In the event of the resignation of any of the officers during the Society's year, to fill temporarily the vacancy until the end of the year. In the case of the office being one which is held for more than one year (e.g. Secretary, Editor, or Treasurer) the appointment shall be confirmed by the Council at its next meeting.

(iii) To act for the Council in the decision of any other matter that may arise in connection with the business of the Society.

The decision of any matter by the Executive to be settled by a simple majority (five to form a quorum). In the event of a tie on any question, such question shall be forthwith submitted by letter to the Council for their decision.

The Executive shall not have power

(i) To add to or alter the Rules ;

(ii) To expel any Member ;

(iii) To re-elect the Secretary, Editor, or Treasurer for a second term of office.

It shall not be lawful for the Treasurer to pay any account unless such account be duly initialled by another Member of the Executive.

It shall be lawful for the Secretary or Editor to pledge the Society's credit for a sum not exceeding £50.

Should a Member wish any matter to be brought before the *Council* direct such matter should be sent to the Secretary with a letter stating that it is to be brought before the Council at their next meeting, otherwise communications will in the first place be brought before the Executive.

A decision of a majority of the Council, or a majority of the Executive endorsed by the Council, shall be final and conclusive in all matters.

11.—The Editor shall have an absolute discretion as to what matter shall be published in the Magazine (subject to the control of the Executive Committee). The Secretary and Editor shall respectively refer all matters of doubt and difficulty to the Executive Committee.

12.—The Council (but not a committee of the Council) shall have power to alter and add to the Rules, from time to time, in any manner they may think fit. Five to form a quorum at any meeting of the Council.

13.—The Council shall have power to expel any Member from the Society at any time without assigning any reason.

14.—Neither the office of Scrutineer nor that of Auditor shall be held for two consecutive years by the same person.

15.—The Scrutineer shall not reveal to any person how any Member shall have voted.

The Society's Medal

RULES

The Medal may be awarded at the discretion of the Committee to any Member who shall succeed in breeding, in the United Kingdom, any species of bird which shall not be known to have been previously bred in captivity in Great Britain or Ireland. Any Member wishing to obtain the Medal must send a detailed account for publication in the Magazine within about eight weeks from the date of hatching of the young, and furnish such evidence of the facts as the Executive Committee may require. The Medal will be awarded only in cases where the young shall live to be old enough to feed themselves, and to be wholly independent of their parents. No medal can be given for the breeding of hybrids, or of local races or sub-species of species that have already been bred.

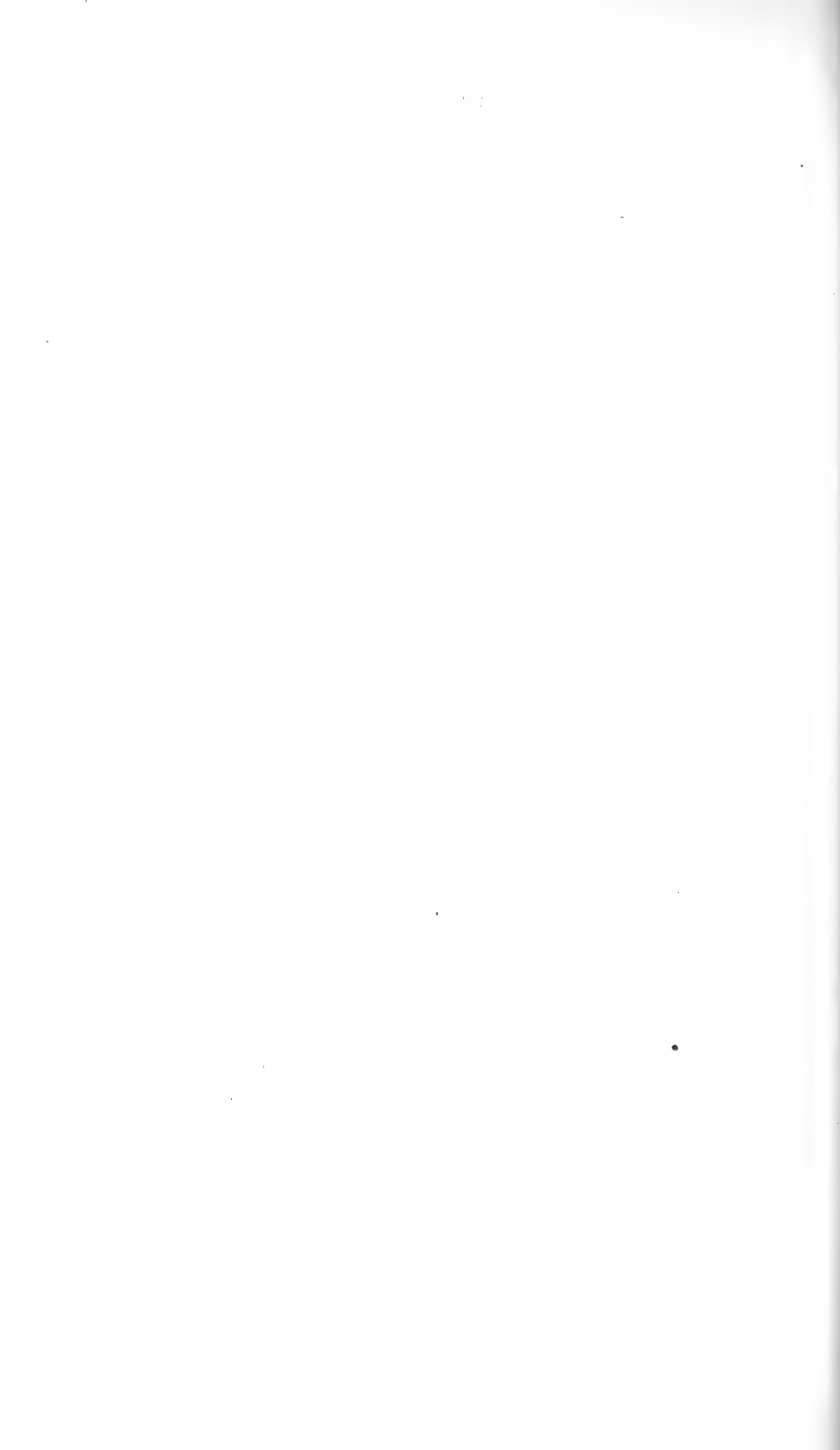
The account of the breeding must be reasonably full so as to afford instruction to our Members, and must appear in the *AVICULTURAL MAGAZINE* before it is published or notified elsewhere. It should describe the plumage of the young, and *be of value as a permanent record of the nesting and general habits of the species*. These points will have great weight when the question of awarding the Medal is under consideration.

In every case the decision of the Committee shall be final.

The Medal will be forwarded to each Member as soon after it shall have been awarded as possible.

The Medal is struck in bronze (but the Committee reserve the right to issue it in *silver* in very special cases) and measures $2\frac{1}{2}$ inches in diameter. It bears on the obverse a representation of two birds with a nest containing eggs, and the words "The Avicultural Society—founded 1894". On the reverse is the following inscription: "Awarded to [*name of recipient*] for rearing the young of [*name of species*], a species not previously bred in captivity in the United Kingdom."

The Council may grant a special medal to any member who shall succeed in breeding any species of bird that has not previously been bred in captivity in Europe.



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White Java Sparrows	35/- pair
Hen Long-tailed Grass Finches	25/- each
Red-crested Finches	25/- each
Green Avadavats	35/- pair
St. Helena Waxbills	9/6 pair
Pope Cardinals	10/- each
Zebra Doves	70/- pair

MEMBERS' ADVERTISEMENTS

The charge for Members' advertisements is ONE PENNY PER WORD. Payment must accompany the advertisement, which must be sent on or before the 20th of the month to MR. T. H. NEWMAN, 46 FORTY AVENUE, WEMBLEY PARK, MIDDLESEX. All members of the Society are entitled to use this column, but the Council reserves the right to refuse any advertisement they consider unsuitable.

SALE AND EXCHANGE

VULTURINE Guinea-fowl (one) acclimatized ; in good condition ; £3, carriage paid.—H. SPENCER, Yew Court, Scalby, Yorks.

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FEW cock Red Jungle-fowl for disposal.—REEVE, Leadenham, Lincoln.

FOR Sale, 13 Pintail × Tufted Diver ; hatched 1934 ; pinioned. What offers?—WINDSOR PARKER, Clopton Hall, Woolpit, Suffolk.

FOR Sale, a few sets of Beebe's *Monograph of Pheasants* ; fifty wonderful coloured plates ; £2 2s. ; the two volumes carriage paid.—BEEVER, Brooklyn, Kirkheaton, Huddersfield.

WANTED

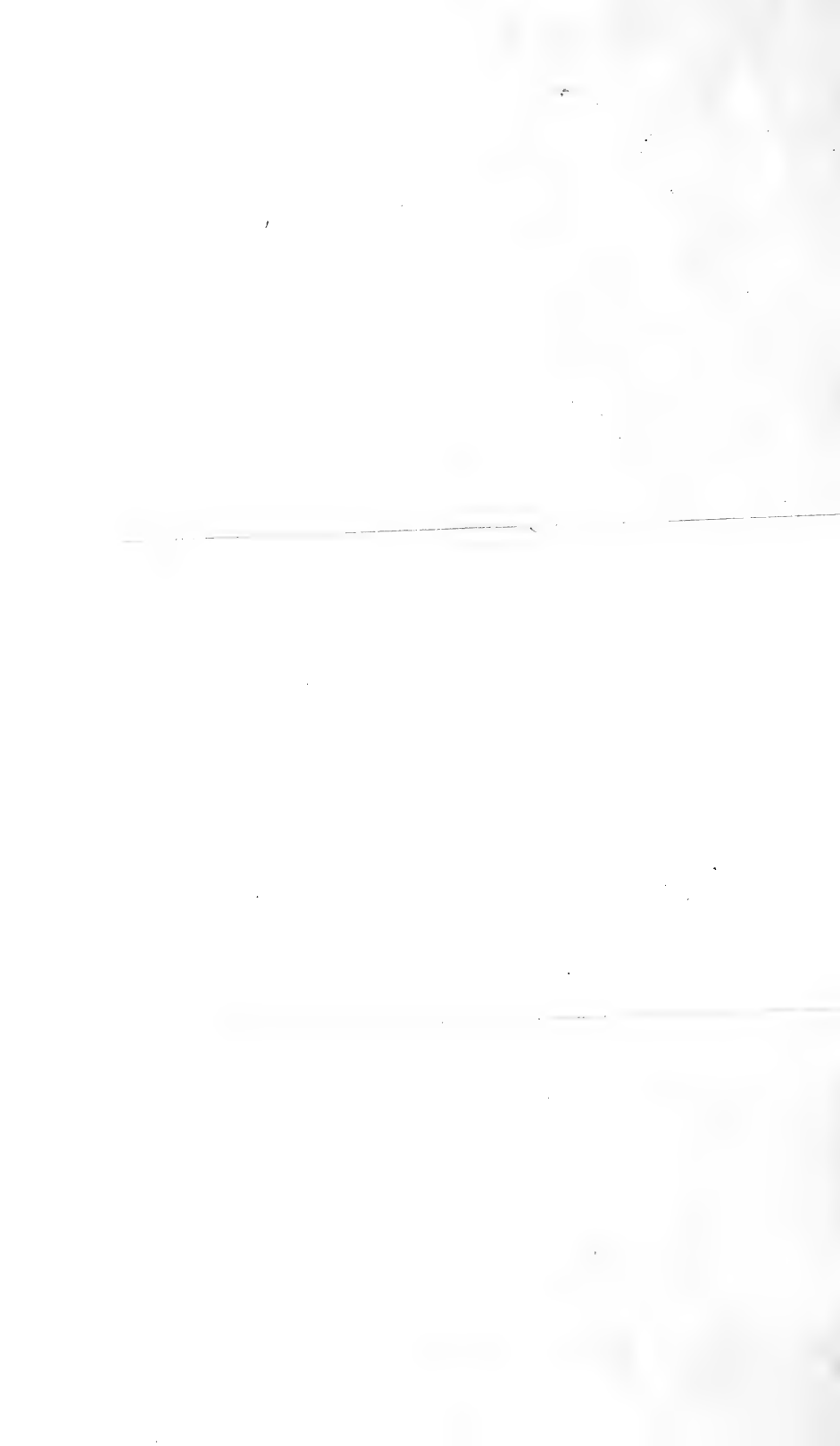
WANTED, two hen Pekin Robins, hen Diamond Dove, cock Cinnamon Dove, hen Scaley Dove.—Mrs. DAWSON, The Oaks, Great North Road, Welwyn, Herts.

WANTED, an Egyptian Gander.—H. C. VENNING, Willett, Bicknoller, Taunton.

THE AVICULTURAL SOCIETY.

Members are reminded that the annual subscription to the Avicultural Society (£1) becomes due on January the First. Members who have not already paid are asked to kindly send their subscription without delay to the Hon. Treasurer, Miss Knobel, **86 Regent's Park Road, N.W.1.** Cheques should be made payable to the "AVICULTURAL SOCIETY".

To those members living abroad a money order is the most convenient form of payment.



THE Avicultural Magazine



CONTENTS

	PAGE		PAGE
Officers for the year 1935 . . .	1	Notes from a London Aviary, by Mrs. WHARTON TIGAR . . .	21
List of Members . . .	3	Bird-breeding at Clères, by J. DELACOUR . . .	24
Rules of the Avicultural Society . . .	23	Gouldian Finches, by Mrs. DENNIS . . .	26
The Society's Medal . . .	26	Bird Feeding, by JOSEPH APPLEBY . . .	27
The genus <i>Sporophila</i> (with coloured plate), by A. MORRISON . . .	1	Review : Les oiseaux. Vol. I. Second edition . . .	29
The Hand-rearing of the White-capped Parrot (<i>Pionus senilis</i>), by H. YEALLAND . . .	11	Obituary : Mr. Samuel McGredy . . .	30
Breeding the Painted Finch in Australia, by H. S. SEWELL . . .	16	Correspondence, Notes, etc. : Danger in Dusty Sand; New Zealand Zosterops in their Native Country . . .	31
A Pheasant which should have a Great Future, by P. SCHMIDT . . .	19		

THE AVICULTURAL SOCIETY

FOUNDED 1894

Patron: HIS MAJESTY THE KING

NOTICE TO MEMBERS

The Subscription to the Avicultural Society is £1 per annum, due on the 1st of January in each year, and is payable in advance. The entrance fee is 10/0. The *Avicultural Magazine* is sent free to members monthly. Members joining at any time during the year are entitled to the back numbers for the current year, on the payment of entrance fee and subscription.

ALL SUBSCRIPTIONS SHOULD BE SENT TO THE HONORARY SECRETARY AND TREASURER, MISS KNOBEL, 86 Regent's Park Road, London, N.W.1.

All Queries respecting Birds (except post-mortem cases) and all other correspondence should be sent to the Hon. Secretary, at the above address. Any change of address should be notified to her.

POST-MORTEM EXAMINATIONS

Rule 1.—A short account of the illness should accompany the specimen. All birds to be sent as fresh as possible to Mr. C. H. Hicks, The Zoological Society of London, Regent's Park, London, N.W. 8.

Rule 2.—A stamped addressed envelope must be enclosed with the bird.

Rule 3.—No body or skin of any bird will be returned under any circumstances whatever.

The Magazine is published by Messrs. STEPHEN AUSTIN & SONS, 1 Fore Street, Hertford, to whom members should address all orders for extra copies, back numbers for 1917 and after, and bound volumes. Cases for binding the Magazine (in art cloth, with gold block on side) can be obtained from the Publishers, post free and carefully packed, at 3/- each; or the Publishers will undertake the binding of the Volume for 5/6, plus 9d. for packing and postage. Members are requested to state whether they want the wrappers and advertisements bound in at the end or not. Telephone: Hertford 546 and 547.

All Inquiries for ADVERTISEMENTS and TRADE SUPPLIES should be made direct to STEPHEN AUSTIN & SONS, Ltd., FORE STREET, HERTFORD.

All communications intended for publication in the Magazine should be addressed to the Editor:—

THE HON. ANTHONY CHAPLIN,
c/o The Zoological Society,
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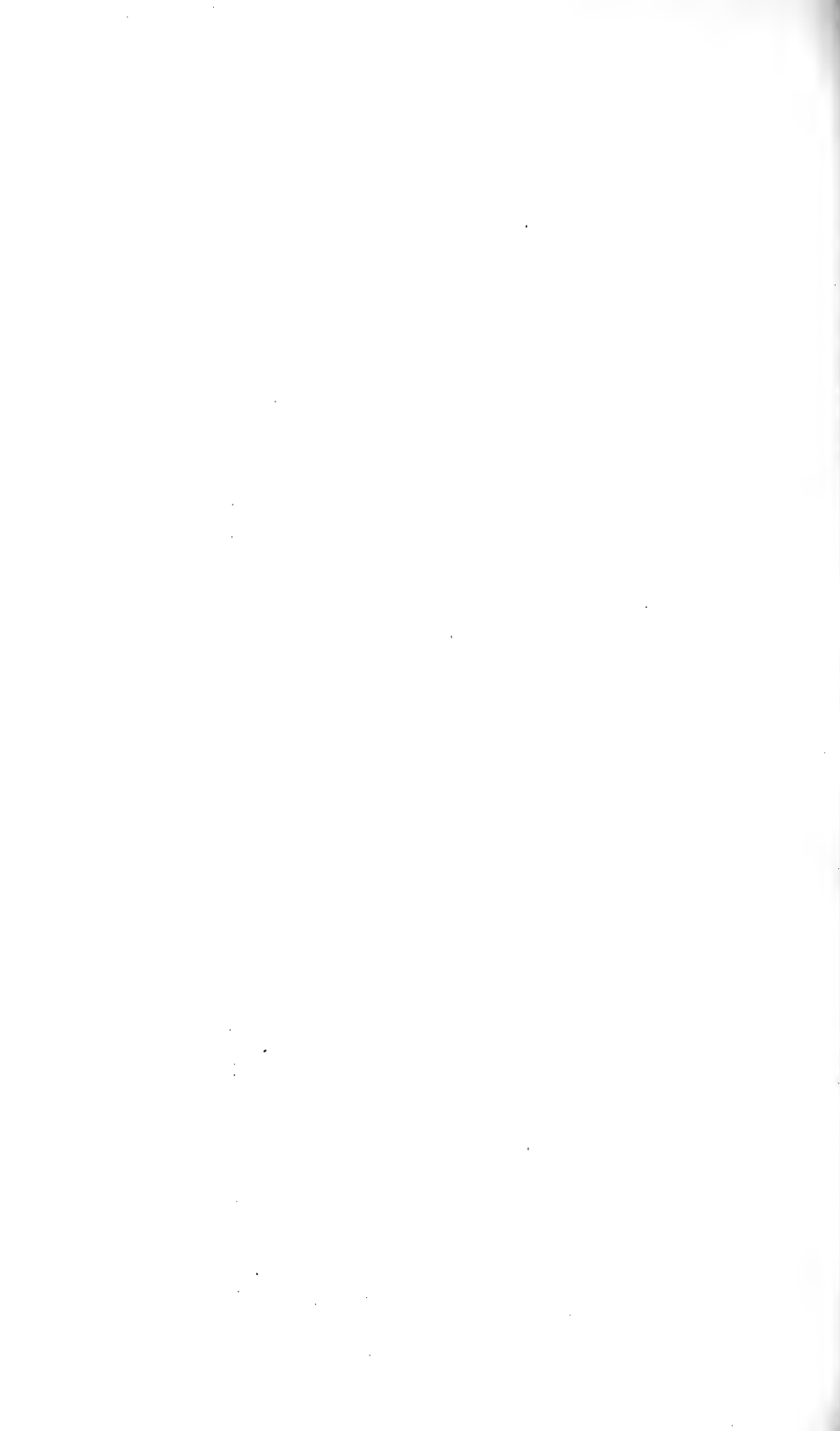
Miss E. MAUD KNOBEL'S ACCOUNT as TREASURER of the AVICULTURAL SOCIETY.

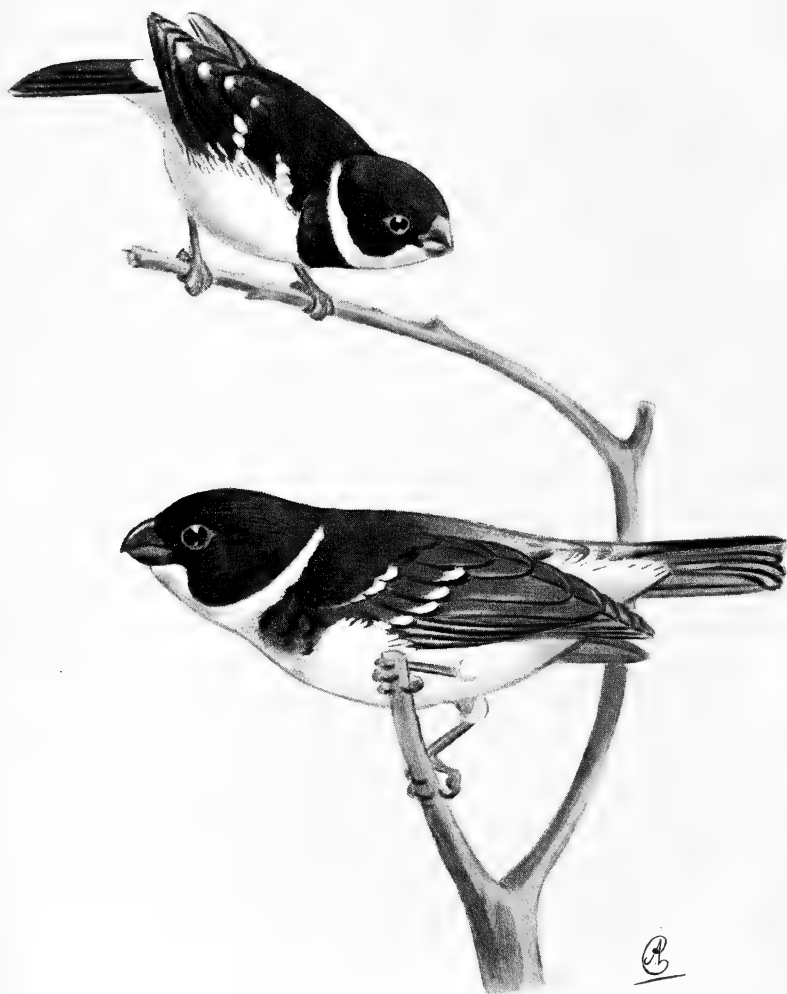
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S. WILLIAMS, Auditor.





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Morelet's Finch
Sporophila moreleti (Bp.)
Lineated Finch
Sporophila americana (Gm.)

From a drawing by the Hon^{ble} Anthony Chaplin.

THE AVICULTURAL MAGAZINE

THE JOURNAL OF THE
AVICULTURAL SOCIETY

Fourth Series.—Vol. XIII.—No. 1.—All rights reserved. JANUARY, 1935.

THE GENUS SPOROPHILA

By A. MORRISON

The Sporophilæ are a family of little Grosbeaks inhabiting the warmer parts of Central and South America. Some twenty-one species are known in captivity and, as they are hardy, pretty, and invariably good songsters, they form very suitable subjects from an avicultural point of view. For some reason they are not a very popular group in captivity and but little is known about them. It is with a view to stimulating interest in the genus that I have written this article and I can but hope that it may arouse some interest.

No claim to originality is advanced. All descriptions have been taken from the *British Museum Catalogue*, vol. xii, or Neunzig. I have merely endeavoured to rearrange and simplify where possible. I am indebted to Dr. Hopkinson for supplying me with the references which may be of use, and for the loan of a manuscript translation of Neunzig.

References are as follows :—

“ Russ ” = Vol. i of *Die Fremlandische Stubenvogel*, 1870.

“ Neunzig ” = *Die Fremlandische Stubenvogel*, 1921 (a fifth edition of Russ).

“ Butler ” = Vol. i of *Foreign Birds for Cage and Aviary*.

“ Foreign Finches ” = Butler’s *Foreign Finches in Captivity*, first edition, 1894.

“ Records ” = *Records of Birds Bred in Captivity*, 1926, by Dr. E. Hopkinson.

"Zoo List" = *List of Birds in the Collection of the Zoological Society*, 1929, by G. C. Low.

"Bird Notes" = *Journal of the Foreign Bird Club*, 1903-1924.

"Avic. Mag." = *Avicultural Magazine*, 1895-

MANAGEMENT

Sporophilæ are inclined to be delicate when first imported and should be kept warm, out of the reach of draughts. When once acclimatized, they are perfectly hardy and practically all species can pass the winter in an unheated outdoor aviary with impunity. For food they should be given canary seed, white and spray millet.

Not more than one pair should be placed in one aviary, as although harmless with other birds, they are frequently quarrelsome among themselves. Every collection of Grass Finches and other weaving finches should contain a pair of Grosbeaks by way of variety and in such a collection they will be found absolutely harmless. As they all possess excessively powerful bills they may be safely associated with much larger birds. If two *Sporophilæ* quarrel, they must be separated or a death will result. They take their fights very seriously.

WHITE-THROATED FINCH (*Sporophila albigularis*)

Male.—Upper surface, slate grey, the crown and sides of head, darker; forehead, lores, eye region, and ear coverts, black; feathers of the upper back and shoulders with darker centres; cheeks, throat, sides of neck, and under parts, white with a broad black band across the chest; flanks, grey; first primary quills with white bases forming an oblong patch on the folded wing; bill, horn yellow; feet, grey; iris, black.

Juvenile Male.—Similar to the female, but paler above and with a more distinctly whitish throat; bill, yellow.

Female.—Upper surface, greyish-brown with blackish centres to the flight and tail feathers; a whitish wing patch; under parts, white with a greyish belt across the chest; bill, blue grey.

Plate.—Butler, *Foreign Finches*, p. 90 (male and female).

Habitat.—Eastern Brazil.

References.—Butler, p. 144. Butler, *Foreign Finches*, p. 90. Russ, vol. i, pp. 569, 685. Neunzig, p. 244. *Bird Notes*, vol. iv, p. 154;

vol. vi, p. 69. *Avic. Mag.*, vol. i, p. 56 ; vol. iv, p. 231 ; 1905, p. 385 ; 1908, p. 88 ; 1931, p. 328. *Breeding Records*, 3.

Little is known of the wild life of this species and even skins are rare in collections. The British Museum only possessed the skins of four adult males when the *Catalogue* was published in 1888, and these four remain the only skins in the collection.

It is, however, commonly imported and is a most charming and desirable aviary bird. Its plumage is smart, it is extremely hardy, and is a fine songster. Males of this species have the reputation of being extremely vicious, but this is only so with closely related birds and in a collection of Weaving Finches, for example, it is usually peaceable and harmless.

As with all *Sporophilæ*, hens of the White-throated Finch are very rare. The catchers never seem to bother to trap them and most of the "females" sold in this country are young males with yellow bills.

The White-throated Finch has bred in captivity, the first record in this country being that of the Rev. C. D. Farrar, in 1905. The nest is an open cup made lightly but strongly of fibres and grass, and in this is deposited three or four eggs, bluish white in colour, flecked and spotted with brownish markings. Both parents share in the incubation which lasts twelve days and the young leave the nest after a further thirteen days. Soft food and ants' eggs should be given to the nesting birds.

White-throated Finches are long lived, and one has been known to survive in captivity for eleven years.

BLUISH FINCH (*S. caeruleascens*)

Male.—Very similar to the male White-throated Finch, but is slightly smaller, possesses a black chin patch, and has no white patch on the wings ; bill, yellow.

Juvenile Male.—Similar to female but a more ashy grey, with a whiter breast and belly ; ashy grey chin spot and chest band ; bill, yellow.

Female.—Above, olive brown ; feathers under the eye dirty white ; cheeks and under-surface, ochre brown washed with yellow ; paler on

the breast and yellowish white on the centre of the belly ; wing and tail feathers, dark brown edged with yellow ; bill, blue grey.

Plate.—Butler, *Foreign Finches*, p. 90 (male). Neunzig, pl. 8.

Habitat.—South Brazil, Paraguay, Bolivia, Argentine.

References.—Russ, vol. i, pp. 562, 570, 685. Butler, *Foreign Finches*, p. 90. Butler, p. 146. Neunzig, p. 234. *Avic. Mag.*, vol. ii, p. 58 ; vol. iv, p. 131. *Bird Notes*, vol. vi, p. 92.

This bird is occasionally imported but is probably frequently confused with the last species. It is a lively active little bird, and in the southern part of its range is migratory. It prefers to keep in small plantations and does not associate in very large flocks. The song is not so good as that of the White-throated Finch and consists of half a dozen notes delivered with great rapidity. One of its synonyms is that of Screaming Finch.

The plate in Neunzig is of a northern sub-species (*S. ornata*), which possesses a white wing patch.

GREY FINCH (*S. grisea*)

Male.—Above, dark slate grey, darker and blackish on the head, sides of neck, throat, lores, and cheeks ; a tinge of brown on the upper tail coverts ; under parts, white ; sides of body and thighs, dark slate grey ; lesser wing coverts, slate grey ; greater wing coverts, black washed with brownish ; rest of wing feathers, black grey with a white wing patch at the base of the inner primaries ; tail, blackish with the central feathers edged with ashy grey ; bill, yellowish ; feet, dark grey ; iris, brown.

Juvenile Male.—I can find no description of this, but it is probably similar to the female with a yellow bill.

Female.—Upper surface and sides of body, pale olive brown, darker on the crown ; sides of head and under surface, pale olive yellow ; centre of belly, breast, under tail coverts, and thighs, whitish ; lesser wing coverts like the back ; the other wing feathers, grey brown with olive-brown edges (the primaries with ash-grey edges) ; tail, brown edged with olive brown ; bill, black.

Plate.—Russ, vol. i, pl. 12. Neunzig, pl. 8.

Habitat.—Guiana, Trinidad, Venezuela, Columbia.

References.—Russ, vol. i, pp. 563, 685. Neunzig, p. 242. *Breeding Records*, p. 3. Butler, p. 144. *Bird Notes*, 1912, pp. 115, 197 ; 1913, p. 139 ; 1915, pp. 65, 95 ; vol. vi, pp. 61, 88.

This bird is occasionally imported and, although not very striking, it appears to be very desirable being harmless and a good songster. They were bred by Dr. Russ, and in 1880 by Jantzen, of Hamburg. Page was the first to breed this species in England, in 1912, and it has been bred once or twice since. The Grey Finch appears to build the usual fragile looking little nest in a bush, and incubation lasts thirteen days. The young leave the nest after a further period of fourteen days. The eggs are lead grey with sharply defined blackish scrawls, and spots overlaying indistinct violet and grey ground patches.

EULERS FINCH (*S. superciliaris*)

Male.—Above, olive green, darker on the top of the head ; lores, eyelid, and eyebrow streak whitish yellow ; ear coverts, olive brown with whitish shaft lines ; cheeks and throat, white washed with yellowish ; sides of neck like the upper surface ; breast, grey washed with yellowish ; lower breast and centre of belly, white ; sides of body, greyish brown shading into olive ; under tail coverts, pale brownish yellow with the bases of the feathers darker and washed with olive ; thighs, brownish olive ; lesser wing coverts, like the upper surface ; inner coverts, dark brown with olive edges and whitish ochre tips ; rest of wing feathers and those of tail, dark brown edged with olive ; axillaries and under-wing coverts, white with olive yellow edges ; irides, dark brown ; bill, brownish grey, heavy, and strongly curved with a larger lower mandible which overlaps the cutting edges of the upper ; feet, brownish grey.

Juvenile Male.—Resembles female.

Female.—Above, darker than the male ; eyelid and lores, olive yellow ; ear coverts, throat, and sides of face, dull olive ; breast and sides of body, olive brown, washed with yellowish ; centre of belly, yellowish white ; under tail coverts, brown ; wings and tail, as in the male, but with the pale markings greyish ; irides, brown ; beak, blackish brown ; feet, blackish grey.

Habitat.—Brazil.

References.—Russ, p. 571. *Breeding Records*, p. 4. Neunzig, p. 241. Butler, p. 145.

This is one of the largest of the *Sporophilæ*, but little is known of its habits in a wild state, although it is said to live on the outskirts of forests and marshes.

Eulers Finch is occasionally imported but does not appear to be a particularly attractive bird. It nested with Russ about 1874, but it is uncertain whether full breeding success was attained or not. They built a large, untidy, open nest in a bush. The song is a noisy rattling chatter interspersed with some long drawn notes and short trills. They appear to be harmless, good-tempered birds.

HALF WHITE FINCH (*S. hypoleuca*)

Male.—Upper surface and sides of neck, slate grey ; cheeks, throat, and rest of under parts, white ; thighs, white, merging into grey behind ; lesser wing coverts, slate grey ; the others, black edged with dark grey ; bastard wing, primary coverts, and flights, black edged with pale grey ; axillaries and under-wing coverts, white, with a blackish patch near the wing border ; the outer webs of the base of the inner primaries are white and form a large wing patch, in some cases extending to the outer secondaries ; tail feathers, blackish bordered with ash grey ; feet, grey ; irides, grey brown. The deep bill is waxy yellow, becoming more orange in colour with old age.

Female.—Above, olive brown, paler and yellower below ; middle of belly and under-tail coverts, whitish ; wing and tail feathers, dark olive brown edged with olive grey ; feet, greyish flesh colour ; bill, yellowish brown.

Habitat.—East and Central Brazil.

References.—Russ, pp. 565, 685. Neunzig, p. 243. Butler, p. 144. *Avic. Mag.*, vol. ii, p. 56.

The Half White Finch is another large but rarely imported *Sporophila*. In a wild state it inhabits open plains, where it feeds mainly on grass seeds. It is a common cage bird in its native land, where it is prized for its song.

I have two males at the present time and find them most charming birds. One, which is cage moulted, is very tame and sings beautifully.

The song is quite simple but loud and sweet. It appears to be a very good-tempered bird, even when caged with other *Sporophilæ*. This is fortunate for it is the possessor of a fiendishly powerful bill quite out of proportion with the size of the bird. A single nip will practically draw blood and it is not a pleasant bird to handle.

PLUMBEOUS FINCH (*S. plumbea*)

Male.—Above, ashy grey, lighter on the lower rump ; upper tail coverts, blackish edged with ashy ; tail feathers, blackish, narrowly edged with grey brown, which becomes pale grey towards the ends ; lores, black, extending to the base of nostril ; ear coverts and cheeks, dark ashy, the former with whitish shaft lines ; small white streak at base of cheeks ; lower eyelid, white ; throat and breast, ashy grey ; centre of breast, belly, and under-tail coverts, white ; sides of body, ash grey ; thighs, white in front, ashy behind ; lesser wing coverts, like the back ; rest of wing feathers, blackish, edged on the primaries with dirty white ; on the others with ashy grey ; pale edges very broad on the inner secondaries, while a white wing patch is formed by the inner primaries ; axillaries and under-wing coverts, white, with a dark patch at the wing border ; bill, blackish, with a pale flesh-coloured tip ; feet, dark brownish grey ; iris, bright, greyish brown ; in some cases the bill is yellow and this feature is probably variable.

Juvenile Male.—Much browner above and on the margins of the wing coverts and quills ; under parts, suffused with brown, which also deadens the white on the throat and abdomen.

Female.—Yellowish grey brown, paler below, with the centre of the belly whitish and no white wing patch.

Plate.—*Bird Notes*, vol. vi, p. 87 (male), uncoloured.

Habitat.—Brazil to Bolivia.

References.—Russ, pp. 564, 685. Neunzig, pp. 241, 242. Butler, p. 144. *Bird Notes*, vol. vi, p. 89. *Avic. Mag.*, vol. ii, p. 57.

Two sub-species have been described :—

WHITELEY'S FINCH (*S. plumbea whiteleyana*)

Similar to the typical race but with the chin and base of cheeks white.

Habitat.—Guiana, Venezuela, and Amazonia.

COLOMBIAN PLUMBEOUS FINCH (*S. plumbea colombiana*)

Similar to the typical race but with the chin, throat, and forepart of cheeks white.

Habitat.—Colombia.

In a wild state the Plumbeous Finch has been observed in small parties in the open pampas and in bushes in swampland. It possesses a loud, clear song, and is greatly valued as a cage bird in its native land.

I only know of the typical race having been imported, but I have given the two sub-species as a matter of interest. The Plumbeous Finch appears to be a very desirable bird and has the reputation of being one of the best songsters in a very tuneful family. Unfortunately it is very rarely imported. Neunzig states that it has once been bred but unfortunately gives no particulars.

LINED FINCH (*S. lineola*)

Male.—Above, black, glossed with greenish, with a band of white feathers across the rump a little mixed with grey ; a broad, longitudinal, white stripe extends over the crown from the base of bill with a similar streak at base of each cheek ; throat, black ; under surface and breast, pure white ; thighs, externally black, internally white ; sides and flanks washed with grey ; wing feathers, blackish with glossy edges ; a double white wing patch on primaries and secondaries, the latter being obscured by the greater coverts ; tail, black ; iris, brown ; feet, lead grey.

Juvenile Male.—Similar to the female but more fulvous below ; a little black on the wing and tail feathers and under the throat feathers which form a dusky patch, followed by a whitish patch on the lower throat.

Female.—Above olive brown, lighter on the under surface, lores, eyelid, cheeks, and throat, pale buffish ochre ; back of the head browner ; breast and abdomen, washed with buffish ochre ; sides and flanks, olive brown ; thighs, yellow brown ; lesser wing coverts, as above ; underwing coverts, dirty white washed with yellowish ; other wing feathers, dark brown with olive brown edges to the secondaries ; bill, black ; iris, grey brown ; feet, fleshy brown.

Plate.—*Bird Notes*, vol. vi, p. 87 (male), uncoloured.

Habitat.—Brazil, Guiana, Venezuela.

References.—Russ, pp. 567, 685. Neunzig, p. 232. Butler, p. 148. Cassel's *Cage Birds*, p. 416. *Bird Notes*, vol. vi, p. 90. *Avic. Mag.*, vol. ii, 59; vol. iv, p. 131. 1931, p. 328.

The Lined Finch is occasionally imported and is a most delightful little bird. In a wild state it prefers open country and associates in flocks.

It is a very pretty species, speedily becomes tame, and confiding, and is a good songster. It is inclined to be vicious with closely related birds, but is otherwise absolutely harmless. It has never been bred.

BLACK-HEADED LINED FINCH (*S. ocellata*)

Male.—Similar to the Common Lined Finch but with the top of the head black, though in the middle of the forehead there are sometimes a few irregular white streaky markings; ear coverts, black, and only the cheeks white; the feathers over the crop, black, with white dot-like markings at the tips; feathers on the sides of the body, white, with black bases which are sometimes visible; whole upper surface of the wing, black, with a greenish gloss; upper tail coverts and tail, black, with glossy, greenish edges; feet, black; bill, black.

Juvenile Male.—I can find no description of this, but it is presumably very similar to the young male Lined Finch.

Female.—Similar to female *Lineola* but with the whole fore neck pale ochre yellowish; under-wing coverts, whitish ochre washed with yellow; sides of body and flanks, yellowish ochre; median and greater wing coverts with paler ends forming an obsolete white wing bar.

Plate.—*Bird Notes*, vol. vi, p. 61 (male).

Habitat.—Upper Amazonia, Guiana, Venezuela, and Colombia.

References.—*Bird Notes*, vol. vi, p. 62. Butler, p. 147. Neunzig, p. 234 (?).

This handsome little bird is very rare in captivity. Some were imported in 1906 and 1907 to this country and this September I was offered some by a German dealer. In its ways it probably resembles the Common Lined Finch, but its song is said only to consist of a sparrow-like chirping.

LINEATED FINCH (*S. americana*)

Male.—Lower back and rump, ashy grey flecked with black ; rest of upper surface, lores, sides of face, and ear coverts, glossy black with greenish sheen ; ash grey margins to upper-tail coverts ; lower eyelid, spot below each eye, cheeks, chin, throat, under-tail coverts, centre of breast and belly, white ; sides of breast and band across fore-neck, black ; sides of body, grey ; thighs, blackish grey ; wing feathers, black, with whitish-grey edges to the lesser coverts, and white tips to the other coverts ; bases of inner webs of inner primaries white, forming a speculum ; tail feathers, black, with narrow, grey edges to the ends ; iris, dark ; bill, lead grey, whitish towards tip ; feet, black.

Juvenile Male.—Undescribed, but probably like female with grey bill.

Female.—Above, olive brown, slightly rusty on the rump ; lores and eye region, whitish grey ; ear coverts, pale olive brown, streaked with whitish-grey ; under surface, yellowish-buff ; centre of breast and abdomen, whitish, tinged with yellow ; wing coverts, quills, and tail feathers, dusky brown, edged with paler brown ; iris, dark ; bill and feet, horn brown.

Habitat.—Guiana, Amazonia, and Tobago.

References.—Russ, p. 570. Butler, p. 146. Neunzig, p. 236. *Bird Notes*, vol. vii, p. 263.

In its native land the Lineated Finch is ubiquitous, living both in the high-lying, grassy plains, and in the damp lowlands. It is very rarely imported. The Berlin Zoo had it in 1913 and some were imported to England in 1909. The London Zoo has had it.

SPECTACLED FINCH (*S. ophthalmica*)

Male.—Upper surface, glossy black, lower back and rump, white, but mottled with black and grey ; lores and sides of head, black, with a tiny white spot below eye ; cheeks, throat, and sides of neck, white ; fore-neck crossed by a black band, widening out on the sides of the chest ; breast and abdomen, white, as well as the sides of body and flanks ; latter mottled with black ; thighs, under-tail coverts, under-wing coverts, and axillaries, white, with a small patch of black near the edge of the wing ; lesser wing coverts, black, edged with white ; the others, black, with white streaks along the edges of the ends of the

inner primary coverts, forming a wing bar ; tail, black ; iris, dark ; bill and feet, black.

Juvenile Male.—I can find no description.

Female.—Above, light brown, tinged with grey on the top of head and upper back ; lores, rust-coloured ; eyelid, buffy white ; ear coverts, cheeks, and under surface of body, light, fulvous brown, whiter along the centre of the breast and abdomen ; sides of body, the flanks, thighs, and under-tail coverts, pale brown ; lesser wing coverts, like the upper surface ; others, blackish, edged with light brown and tinged with fulvous ; tail, pale brown.

Habitat.—Ecuador.

References.—Russ, p. 570. Neunzig, p. 236. Butler, p. 146. *Avic. Mag.*, vol. ii, p. 57. *Bird Notes*, vol. vi, p. 186.

The Spectacled Finch is extremely rare in captivity. A few were imported in 1912, and it has a place in the Zoo list, where it is included as a sub-species of *Sporophila aurita*.

(To be continued.)

THE HAND-REARING OF THE WHITE-CAPPED PARROT

(*Pionus senilis*)

By H. YEALLAND

The disappointment of the failure of Lord Tavistock's pair of White-capped Parrots to rear their young successfully last summer was, at the time, mitigated by the hope that a second nest might be forthcoming, and it was with this expectation that we substituted two tall logs for the tall box in which the previous brood of two young ones had come to grief.

All hope of breeding this charming species in 1934 had, however, gone by the time I went for my holiday in early August, for, a few days before I left, I noticed that the cock had commenced to moult and had actually dropped a secondary. It was, therefore, with surprise that I learnt on my return of a new effort on the

part of the White-capped and the probability of eggs due to hatch in about a fortnight.

How many eggs there were we did not know, for the hen rarely comes off from the time she settles down in the nest (and I believe this is a long time before the first egg is laid) until the young are some days old.

At about the time Lord Tavistock left for Scotland in early September he told me he thought the eggs would hatch in about a week, and, as there was little hope of the successful rearing of the family (for in addition to the parents' persistent failures from one cause or another, the autumn seemed to be already upon us, and the nights were quite chilly), he wanted me to try to hand-rear at least one of the young.

It was difficult at the time of the expected hatching of the eggs to tell what was going on in the nest, for I could never find the hen off, nor could I hear any sound of young ones: it seemed, however, certain that all was well with the hen, because the cock spent a lot of time sitting outside the nest.

On account of the cold weather I did not like to take the cock away, because this would mean that the hen would probably come off for food and might stay off long enough to spoil the eggs: moreover, as it had previously taken not less than a week for the cock to get bored with the young ones, to the point of biting them into small pieces, I decided that to leave him was the safer course.

A few days later I had my chance when I found the hen off, and on looking into the log I found three eggs, two of them fertile and apparently fairly near hatching and the third quite definitely clear. I had no other chance of looking in for a week, and then I found that neither of the eggs had hatched. I feared that they contained dead young ones, for it seemed that the hatching was long overdue.

I did not catch the hen off again, but about eight days later, on 30th September, I noticed the cock eating grass, and this meant that in all probability there were young, for the cock very rarely eats grass at any other time.

The difficulty of the moment was how to get the hen off, and, as

she declined to move when the log was tapped, it was clear that any young ones there might be would need to be rescued by bold methods. I took off the lid, and even so could see nothing but the defiant hen: it was then a choice between removing her and chancing desertion, and leaving her and risking whether the potential young survived until I could catch her off. I decided on the former course and, by lowering a twig into the nest so that the hen clung savagely to it, I was able without much difficulty to get her out.

I found one young one about four days old, and the other fertile egg contained a dead chick, for a lot of dark liquid could be seen moving about inside when the egg was turned. I took the young one into the hospital and put it into a small box containing a thick layering of soft, crumbled, decayed wood, and on the top of this a piece of flannel. The flannel was not absolutely necessary, but by changing it twice daily the box could be kept very clean, and it was also useful for the better observation of the state of the young one's bowels. The temperature of the hospital at that time was between 80° and 85° F., and so, with another piece of flannel laid on the young one, its body warmth was, I conjectured, quite well maintained.

The parents seemed to feel their loss considerably, for the hen was very sulky for some days, while the cock took on a special fury and it was evident that he regarded such interference with his privilege to kill his own young a positive outrage.

When I brought the little bird in it had a small quantity of food in its crop, and this lasted it until the early afternoon. I at first thought that it would be impossible to supply semi-solid food to so small a bird, and accordingly I started to give egg and milk, but found that a meal of this lasted only about two hours and it was clear that something more sustaining was needed. The following mixture was then tried, and it is upon this that the bird has been successfully reared: 1 part soaked monkey nuts, $\frac{1}{2}$ part soaked shelled sunflower seed, 1 part brown bread, $\frac{2}{3}$ part peeled sweet apple, small quantity of green food (such as the leaves of the soft milk thistle, lettuce, dandelion, and cabbage), a small quantity

of Allinson's food prepared with milk (as for lorikeets), into which has been mixed the yolk of an egg, about $\frac{1}{4}$ teaspoon Radio-malt and $\frac{1}{8}$ teaspoon of Marmite. The whole of the solid ingredients of this mixture were thoroughly chewed up each morning, and by being kept in a pot in a cold place remained fresh the whole day. The red skin on the monkey nuts was, of course, removed, and only the tender leaves of the green food were used. The complete mixture should not be made too liquid, but should conform as nearly as possible to the consistency of the food normally supplied by a parrot to its young.

The only way of feeding the young of parrot-like birds with any degree of facility is to warm the food in the mouth and feed the bird from the mouth—this process is much easier and less revolting than it might sound, and by this method there is no danger of deforming the beak, as there is by feeding with a spoon. It is, of course, essential that the food should be given warm.

From the very first the little parrot has flourished on this treatment and has evaded all the maladies of the sick birds that have been brought into the hospital since it has been there. I have fed the bird four times each day, including once at about 11.00 p.m., and presumably this is better treatment than parent birds would normally provide at this time of the year.

At about ten days the eyelids showed signs of separating, and at about fourteen days the eyes were open. At about this time, too, feathers were making their appearance beneath the skin: the most advanced were the scapulars and the wing coverts. I found that at this stage the little bird needed an abundance of food for, in addition to the growth of feathers, the body continued to grow at a rapid pace.

At all meal times, excepting the first morning one, the bird had some food left in its crop (a fact of which, to judge by its lusty cries when I approached, the little parrot was not aware—indeed, it continued to clamour for food even when its crop had assumed what seemed to me alarming proportions), and I feared that there might be a danger of this food becoming sour, but as this never happened, there was, presumably, no danger.

The bird continued to thrive, and was of such aggressive health that I had hopes of a successful rearing. As more and more "pin feathers" made their appearance, I wondered if the heat of the room was too great, and partly for this reason, and partly because the covering was often trampled underfoot by the young one, I discontinued the covering altogether.

At about four weeks the bird was fairly well covered with feathers, and I thought it would be better for its health to be kept in the next room, the temperature of which is maintained at 65 to 70°, and to this end I lowered the hospital temperature by about one degree each day. I never succeeded in getting the temperature below 76° before another sick bird had to be brought in, and the heat increased to 85° again.

On 12th November I moved the bird to another open-topped box containing a depth of about 2 inches of crumbled decayed wood. The flannel was dispensed with, and the box was stood inside a cage. At about 9 inches above the decayed wood was the entrance hole of the box, and I nailed some pieces of bark on the side leading up to this. The next day the little parrot climbed up and looked out of the hole, and for a further two days spent most of its time looking out. I am sure it was quite capable of climbing out, but lacked the confidence to climb on to the thin perch I had arranged near the hole, and so on the morning of 15th November I fixed up a strip of stout bark across the cage near the hole, and during the afternoon the bird climbed out. It went back into the box to roost, and at the time of writing (24th November) it has continued to do so. During the day, however, it climbs about the wire and the perches, and only goes into the box to exercise its wings.

It has considerable strength in its beak and has already bitten off a lot of bark. It has also been eating some shelled monkey nut and has shelled sunflower seed and eaten some of it, but has not so far touched any of the other soaked seed which I have put in a dish hanging on the side of the cage. I think this bird will be fully as large as its parents when it has finished growing.

The coloration of the back, upper tail coverts, and wings is Cinnabar green with a bronze shading on the wings; the breast and

under parts are of a lighter, more bluish, green, with none of the slaty-blue shown by both the parents. The under tail coverts are of whitish-green, darker towards the centres. The white "cap" is so far a mere frontal band not more than $\frac{1}{2}$ in. in width. The feathers on the top of the head are green with dull blue edges, and those on the sides of the head are more slate-coloured. The bastard-wing, primaries, and lateral tail feathers are deep cobalt blue, but the tail feathers have the inner webs towards the base of salmon pink. The secondaries are green and blue, and the central tail feathers are bluish-green. The beak is of bone colour, with a blackish area on either side of the upper mandible; the legs and feet are also of bone colour, with the claws black. The irides are a fairly dark brown.

In spite of the dry heat of the hospital, the feathers are of excellent quality and are quite glossy.

A curious habit of this little parrot is that of always going into the box to exercise its wings: it also stands on the perches with a very upright pose and with its chest expanded as though it fully expects at any moment to receive a decoration of some kind.

BREEDING THE PAINTED FINCH IN AUSTRALIA

By H. S. SEWELL

Being the first member of the Avicultural Society of South Australia to breed the Painted Finch (*Emblema picta*) I thought perhaps a few notes on this species and its nesting activities may be of interest to the readers of your splendid magazine.

The Painted Finch is one of our rarest finches and has for many years been practically unprocurable, in fact some years ago it was freely rumoured that the species were extinct. Fortunately, however, this rumour was exploded this year, by a number of those rare birds making their appearance from the far north of this State (South Australia). I quickly secured a few pairs in the early winter and set about the task of trying to breed them.

It was not until our early spring that the first pair showed signs of nesting by taking possession of a small box which I had partly filled with soft grasses. In this they constructed a domed nest which they lined with flock and wadding, definitely discarding feathers. Three white eggs were laid but unfortunately proved to be unfertile.

The birds were apparently immature, as they were not nearly in full colour when they first began nesting. An adult male bird carries on his chest a broad splash of dazzling scarlet on a black background together with the usual white spot markings.

They soon laid again, however, and this time I was greeted with a little more encouragement, as later they were undoubtedly feeding young; however, bad luck still persisted. One morning I found two young birds, fourteen days old, thrown out of the nest, not through intrusion on my part, but through inadequate feeding which I later rectified. The third nest was duly completed this time; six eggs were laid, five being the usual number. This nest was a little more open than the previous two, so I could observe the eggs without interference to the nest. Sixteen days from the last egg the young appeared; nineteen days later three young birds left the nest; the next day three more made their appearance which more than delighted me, and proved a grand tonic to my frayed nerves. One young one, which had appeared weak, died, however, but the remaining five are remarkably strong and doing well at the time of writing.

The colouring of the young is as follows: Head, light brown; beak, black and very much shorter than that of an adult bird; eyes, black, where yellow in the adult; lower back, reddish brown; rump, scarlet; extremity of tail feathers, black, edged with red; wings, light brown; throat, breast, and under parts, black, with well defined white spots; beneath the throat and extending down each side of the body one or two of the young are carrying a few spots of crimson on the breast, presumably these are male birds; the legs, pale biscuit shade.

These finches are not so particular as to their nesting sites as are Gouldians, who usually prefer a hollow log. I have one pair of

Painted Finches that have built a rough dome-shaped nest among some gum branches, and another pair that selected a hanging fern basket out in the middle of an open flight. They burrowed into the soil in this and made a cup-shaped nest. Incidentally I am inviting Mr. Harvey to take a moving film of this pair feeding their young; being right in the open in an open cup-shaped nest, we have a splendid opportunity for this experiment as one may observe the young, which are a few days old, from a distance of 6 feet. But I am of the opinion that a small nest-box is their favourite site.

I consider these finches to be among the hardiest of our birds as they prefer to roost out during the cold and wet nights of our winter without any ill effects. For freshly caught birds I consider this the supreme test of hardiness.

The song of the male bird, if it could be called such, consists of a peculiar loud clucking noise.

Their food consists of seeding grasses, sprouted seed, aphids, and small mealworms.

I am now concentrating on breeding the beautiful Firetail Finch (*Zonæginthus bellus*). Unfortunately these delicate little finches require skilful handling to keep them alive, which is no doubt due to environment and feeding. The Red-eared Firetail Finch (*Z. oculatus*) is somewhat similar, but I trust with our increasing knowledge of this species we shall overcome these difficulties soon.

I am interested in all rare finches and waxbills; some of the foreign birds I have are Melbas, Violet-eared, Roufous-backed Mannikins, Dufresne's and Black-cheeked Waxbills, Giant Magpie Mannikins, Green Avadavats, etc. If I have any further outstanding successes later I will be pleased to let you have particulars.

[Our members will always be interested to read of Mr. Sewell's successes. That of rearing young of the Painted Finch is a triumph indeed.—Ed.]

A PHEASANT WHICH SHOULD HAVE A GREAT FUTURE

By P. SCHMIDT

THE DARK GOLDEN PHEASANT (*Thaumalea picta* var. *obscura*)

Though it was known already before the War that there exists a beautiful colour-variation of the Golden Pheasant (*Thaumalea picta*) and the Dark Golden Pheasant (*Th. picta* var. *obscura*), the great majority of bird keepers and lovers are not aware of the existence of this bird.

So, as the dark variety of the Golden Pheasant is known only in a small circle of bird lovers, I think my fellow aviculturists will be glad if I give a short description, as follows:—

The colours of the adult cock are roughly the same as those of its ordinary relation, but every colour is much brighter and darker; its cheeks and throat are black, and the tail, unlike that of the ordinary Golden cock's net-like design, is provided with wavy cross stripes. Under the throat a greenish-yellow spot is to be seen, right down to the crop region. The chief colour of the hen is chocolate brown, with black spots and stripes as in the ordinary Golden hen. The colour of the feet of both sexes is olive greenish-brown, but one may come across some yellow-greenish-footed specimens too. All the so-called Dark Golden Pheasants, which do not correspond to this description, are not real, being either ordinary birds or mixtures of ordinary and dark-colour variations and, as such, quite worthless. As most people do not know the bird and so may send off a wrong consignment in the best faith, the necessary precaution should be taken on the part of the buyer.

When newly-hatched the chicks of the Dark Golden Pheasant can easily be distinguished from chicks of the normal type, inasmuch as the down of the chicks is dark brown, the throat having a light, pale spot, which later disappears.

Some mistaken ideas exist as to the origin of the Golden Pheasant's dark variation, some contending that it is due to the intersection of some *Colchicus* species. But those who have kept pheasants, and know to a certain extent the laws of crossing, will be

able to establish that this is impossible, because, as in the case of the not entirely unmixed Amherst, or the continued breeding of other crossed specimens, some can be found among the descendants which resemble the original ancestors. In the same way set-backs should occur in the Dark Golden Pheasants if this theory were true, though this has never happened. The Dark Golden Pheasant always remains *Thaumalea*, both in colour and in form. So it is absolutely true that it is the result of a mutation, which, however, is unknown in the wild state. Unfortunately I do not know who first bred this colour-variation.

It is to be noted that one sometimes finds somewhat lighter specimens among the Dark Golden Pheasants as well, but they are still easily distinguished from the ordinary colour shades or from the mongrels of the ordinary and dark birds. At the further breeding it is recommended to cross a light hen with a darker cock and vice versa, else you may discover among the descendent cocks some specimens with yellowish shade feathers on the belly and side, and that would certainly be at the expense of beauty. I possess at present a similar cock, which, being matched with a lighter hen, presented descendants of a perfect colouring.

The Dark Golden Pheasant belongs to the prettiest of fancy pheasants, and even those who know the ordinary type are struck by the first sight of the dark-throated variety. In any case it is evident that there is an increasing interest in these pheasants on the part of bird lovers, which is no wonder, considering that even its common relation, owing to the cock's call-plays during almost the whole year, its modesty in feeding, and satisfaction with even a small place, will always be welcome in the aviaries of bird lovers, especially in those of the less wealthy bird keepers; and it is only natural that a bird, prettier than its relation and possessing all its good qualities, should secure for itself a lasting place with almost every bird lover.

The chicks of the Dark Golden Pheasant can be reared with the same easiness as those of its ordinary relation. If properly fed the fancy plumage will be equally pretty under any climate and there is no fear that the colours will lose their intensity. Our bird will

endure perfectly well the cold, heat, and drought, so they will prove to be ideal aviary birds for those who cannot afford luxurious dwelling places such as are usually arranged for the less acclimatized rare pheasants.

NOTES FROM A LONDON AVIARY

By MRS. WHARTON TIGAR

What a wonderful time the end of May is for aviculturists! Hope runs high, and we dream of our wonderful successes in breeding the rarest birds. We see our chimney pieces adorned with medals won for us by birds bred for the first time in the British Isles, or even Europe; avicultural enthusiasts are incurable optimists, and surely it is right that we are, otherwise, I fear, but few of us could survive.

When May came along, I had a promising collection of the rarer birds suitable for a London aviary. Among softbills I could boast of a pair of the Crested Tanager (*Tachyphonus cristatus*); these were let loose in a fairly large planted aviary. It took the best part of the summer to get them into breeding condition, and just as the time came to move them indoors the cock began to display to the hen in the evening. Most handsome he looked as he flew to and fro, and reminded me of a huge red-admiral butterfly in his colours of red, black, yellow, and white; the hen is a plain little thing in brown.

I also had a pair of the attractive New Hebrides Zosterops (*Zosterops flavifrons*), but I found that they did so much damage to the foliage of plants in my greenhouse that they had to be caged again; they were active little creatures, very bright yellow, especially the cock.

Among finches, I had pairs of the gorgeous Royal Parrot Finch (*Erythrura cyanovirens regia*). They arrived in England in April, brought over from the New Hebrides by Messrs. Walter Goodfellow and Shaw Mayer. I never shall forget my excitement when first I saw them. Unfortunately, owing to difficulties with their food and

transport, they were nearly all damaged in flights and tail. I had first choice of the collection soon after they were landed, and I chose four of the brightest specimens I could find—my greediness resulted in all four being cocks! Afterwards I secured others that turned out to be hens. When these birds are in full colour there is a very decided difference in the sexes; the red of the head extends farther in the cocks, and the hens have green flanks. Their colours certainly are vivid, with brilliant peacock-blue bodies, bright green sheen on wings, and red tails and heads. Among the hens I secured were two that Mr. Goodfellow had hand-reared. These were delightfully tame and followed me about the aviary; one would even perch on my hand and eat a mealworm while sitting there. On the whole, I found the *Regias* active in the aviary, and the hens paid frequent visits to the nests, but it went no further. The cocks utter a sound like a guard's whistle, much the same as the call of the Red-headed Parrot Finch (*E. psittacea*).

I secured at least one pair of all the little finches brought back from East Africa by Mr. C. S. Webb. Among these pride of place belongs to the Hartlaub's Spotted Waxbill (*Mandingoa nitidula nitidula*). No importation of this species had before been reported, the reason being that these birds are widely distributed, and even isolated specimens are rare; it is their habit to keep to the thick tropical undergrowth, and consequently they are very difficult to locate. In general colour they rather resemble a Green Avadavat, but are of a more cobby shape; the cock has a bright yellow rump, orange red cheeks, and black spots on his sides on a white background; his beak is black, with a red tip, and the feet are brown. The hen is very similar but altogether paler. When caged, my hen plucked the cock bare of feathers on back and forehead. In the aviary they got on well, and were always together; they are not so retiring in their habits as the Peter's Spotted Firefinch (*Hypargos niveoguttatus*), but are like them in many ways. Their call is similar, and both these species spend most of their time hunting on the ground for insects. The cock *Mandingoa* carried grass about, and once I saw him displaying to the hen in the usual manner, bobbing up and down, straw in beak, getting closer and closer all

the time. This happened in July, and the hen began to moult soon after, which put an end to their courtship. Later, if the weather had not turned so cold, forcing me to remove them indoors, I feel confident that their fancy would have gently turned to thoughts of love.

The Red-eyed Crimson-wings (*Cryptospiza reichenowi sanguinolenta*) are gentle and somewhat retiring in the aviary. My pair attempted nesting, but the cock sickened suddenly and was only restored to health by a careful course of mealworms soaked in olive oil. After this they did not attempt to nest again, although they were always together.

My pair of Purple Grenadier Waxbills (*Granatina ianthinogaster ianthinogaster*) were very fit and eager to go to nest from early in the season but seemed unable to fix upon a site for their nest; eventually this difficulty was overcome, and they nested three times. On the last occasion three eggs were laid, but the birds deserted. When I examined the eggs I found three dead chicks, nearly ready to hatch.

My greatest hopes were centred all the summer upon a pair of *Pytelia afra*—the Red-faced Waxbill. They were in exceptionally fine condition and most eager to nest. They started in May and made the usual domed nest among twiggy dead branches hanging in the aviary. The nest seemed small for the size of the birds, but they sat well, and all went merrily until their one youngster was 14 days old, and then one morning I found him dead in the nest. The birds began again at once and my hopes ran high. But, alas! the same thing happened and I found three youngsters dead in the nest when two weeks old. This occurred in all four times. The last time I removed the three fertile eggs and placed them under a good pair of Bengalese which had successfully reared Gouldians and Diamond Sparrows. At exactly the same period the youngsters died. Each time I supplied every food I knew of for rearing the young birds, including absolutely fresh ants' eggs. As these birds nest in the rainy season in the wilds the want of moisture may possibly have been the cause of these disasters.

My Violet-eared Waxbills (*Granatina granatina*), Blue-headed

Waxbills (*Uræginthus cyanocephalus*), and Tanganyika Melba Finches (*Pytelia melba grotei*) did well in the aviary and were easy to keep in fine condition, but did not attempt to breed. Two other species, perhaps less well-known, are the Kenya Firefinch (*Lagonosticta rubricata hildebrandti*) and the Yellow-bellied Waxbill (*Coccopygia melanotis kilimensis*), closely related to the Dufresne's Waxbill. Both these, though they did well in my aviary, surprised me by making no attempt to nest.

Against my lack of success in breeding any of these rarer species, I had particularly good results with the commoner birds. My Gouldians and Long-tailed Grass Finches were in excellent form, and my Diamond Sparrows produced sixteen youngsters in five nests!

In conclusion I can only hope that Dame Fortune will favour me more kindly next year.

BIRD-BREEDING AT CLÈRES

By J. DELACOUR

The two very dry years which we have just had in Normandy have been favourable in many ways, but also had their drawbacks in aviculture; many birds did not lay as well as usual, and the shortage of insects in the summer was decidedly detrimental to certain species.

The large flightless birds, Emus and Rheas, have done well; some thirty white and grey Rheas were raised in 1933, but only eight in 1934, owing to the loss of the best breeding female. My Emus and Darwin's Rheas are not properly paired, and naturally did not breed.

Many Cranes laid clear eggs, but each year three pairs of Demoiselles nest, always at the same places, very far distant, and rear their young without difficulty. They are fascinating to watch, as they are such wonderful parents, catching insects all day long for their chicks. This year, an old hen Eastern Sarus, who never had produced fertile eggs as long as she had a cock of her own species, hatched and reared two fine hybrids with an Australian

Crane. They grew very quickly, and at two months of age were just as big as their mother. One cannot say yet what they will look like. White-necked Cranes laid unfertile clutches; Crowned Stanley's, White Asiatic, and Manchurian Cranes did not lay, although most of them live in pairs in very large paddocks by themselves.

Waterfowl have done well, although I am afraid that many eggs have been eaten by Cranes, Brush Turkeys, and other birds which live at liberty. If accidents overcame to the broods of Emperor and Ross's Snow Geese, quite a few Ashy-headed, Cereopsis, Magellan, Blue-winged, and Bar-headed Geese were reared, and this year three Andean Geese. Sheldrakes have been particularly successful; in the last two seasons over fifty Paradise, South African, hybrid Rajah, Ruddy, and Common Sheldrakes were bred. Ducks were bred in numbers, the rarest being Brazilian, Green-winged, and Cinnamon Teal, Black-billed, Fulvous, and true Red-billed (*autumnalis*) Tree-ducks, and Madagascar White-eyes.

Game birds, at liberty in the park—Brush Turkeys, Black-shouldered Peafowl, Wild Turkeys, Silver Pheasants, and Jungle Fowl—breed plentifully. Among others, we have bred some Manauls, Blyth's Tragopans (6), Rheinarte's Argus (4), Gemani's Palawan (4), Bronze-tailed Polyplectrons, Blue Crossoptilons (25), Mikado, Copper, Edward's, Imperial, and White-crested Pheasants. One hybrid Koklars (*darwini* × *macroloplix*) unfortunately died when three months old.

One pair of Grey Polyplectrons has produced no fewer than eighteen young ones in two seasons. Roulrouls were hatched, but not reared. No rare Parakeets were reared; only the different Love-birds; but a good many Pigeons were bred: Nicobar, *chrysis*, Bronze-winged, Blue-headed Pigeons, Long-tailed, Jobis, *amabilis*, Mourning, Talpacotis, Diamond, Senegal, and this year Galapagos Doves. Although these were provided with rocks and miniature caves, they preferred to use small baskets fixed high up in trees.

Of the smaller birds, Madagascar Weavers bred regularly, and two broods of Hooded Pittas were reared in a greenhouse, as I have already recorded.

GOULDIAN FINCHES

By MRS. DENNIS

A few notes about my mixed collection of small foreign finches may be of general interest.

The aviary is divided into two portions, the inner division being one side of a large wooden building 20 by 4 feet. This opens into a flight 18 by 8 feet, partly glazed, leaving one end open to the winds and weather. In the spring I purchased some Cordon Bleus, Cut-throats, Fire-finches, Avadavats, Nuns, Bengalese, and Silver-bills, and last, but not least, some Gouldian Finches. In the spring I bought fifteen pairs of newly-imported birds. I knew the risk I was taking, but determined to try the experiment. This particular lot were indeed very fine specimens, and hopes of success flashed high in consequence! I had partitioned off one end of the inside aviary in readiness for these little travellers. It was in a warm corner near a stove which heated a water-pipe running through their new quarters.

For two or three days all went well, and they ate well and were full of song, but on the fourth day one was dead, and the following day two more, and again another one the next day. I sent up two of these for a post-mortem, though I knew quite well what the verdict would be. The same old trouble with all these newly-imported birds, "pneumonia." A note completed this report: "Newly-imported birds are a very risky experiment!" Of course, I knew this, but had determined to see what I could do, but I must say I felt somewhat depressed, as the survivors almost daily got fewer!

However, I did not mean to lose heart, and after I had lost fourteen or fifteen in three or four weeks, there were no more casualties for a few days, and in fact after this I only lost one more, and then found I had seven pairs left, in addition to a pair I had had in a cage in my house for three years. This pair had never shown any signs of breeding, but now that they had their freedom I saw that they were continually in and out of the nesting-boxes. I was also somewhat surprised to see one of the newly-imported birds

going round with bits of grass. Very soon these two pairs had each a nest of eggs, and to my joy both hatched and reared three young birds. I have read in various articles that Gouldians cannot be reared with other birds, but I have not found this to be the case, as I have bred this year (besides the Gouldians) several nests of Zebra Finches, Cut-throats, and Gordon Bleus. At the time of writing (i.e. the 4th November) I have four Gouldians nearly fledged, and another nest just hatched. On 15th October I shut all the birds into the inside enclosure, but did not light up the heating apparatus till the last day of the month, when the temperature dropped in the night to 39 degrees, but it was quite cold enough, and I think they all greeted the warmth with pronounced vigour and extra song. The birds are all strong and in splendid condition; I put this down to a portion of their diet of which they are very fond: canary-seed steeped in cod-liver oil. This seems to keep them healthy and well, and they revel in it. My original pair of Gouldians have become so tame that the cock bird will sit on the finger of the man who feeds them when he holds out a tit-bit for him. I hope now to concentrate more or less on the Gouldian, as I think few birds come up to this beautiful little finch, with its exquisite colouring and delightful habits.

BIRD FEEDING

By JOSEPH APPLEBY

The question of the correct feeding of aviary birds seems to be a source of anxiety to many aviculturists, and as the subject has not been ventilated, at any rate of recent date, in the *Magazine*, I venture to open the subject, with a view of drawing some information which will be of general use to members of the Avicultural Society.

Every bird keeper has some pet theory, and the sum of them would be of incalculable value to all interested in the well-being of their birds. I have been keeping birds for the last twenty years or more, in the way I fancy most of us do, not so much with the idea of breeding for sale, but for the pleasure of studying their habits and ways. If some do

breed so much the more interesting, but I make no claim to be a breeder.

My collection of about 120 is of birds common to most aviaries, Canaries, Diamond Doves, Budgerigars, Peking Robins, Whydahs, Weavers, Grass Finches, Gouldians, Buntings, and Waxbills, etc.

They are divided into hardy and tender. The former are housed in shelter and flight 30 feet long, 12 feet wide, and 10 feet high, which is not heated. The latter have a room 15 feet by 12 feet by 10 feet high, which is maintained at a temperature of not less than 55° Fht. the year round, and a flight 12 feet square by 8 feet high, and these are driven in each night winter and summer and include Grassfinches, Gouldians, some of the Buntings (Rainbow and Versicolor), and Waxbills. Now, I have tried many mixings of seed and after segregating the seeds least acceptable, have for some years used the following with, so my friends tell me and I think, excellent results.

White millet 56 lb., small yellow millet 14 lb., small canary seed 28 lb., groats 7 lb., hemp 2 lb., teazle 2 lb., maw 2 lb., niger 1 lb. Total 112 lb.

I am often asked why I mix such small seeds and small quantities of niger, maw, and teazle with the others and not give them in separate containers. If I did they would be devoured at once by a few strong birds to the exclusion of the weaker ones. Whereas when mixed they are obliged to search and scratch to find them. The feeding tables being of ample proportion (2 ft. 6 in. by 2 feet) there is room enough and each bird has a fair chance.

The hardy birds, Canaries, Budgerigars, Weavers, Whydahs, etc., have about 25 per cent giant sparrows canary seed added to the above mixture.

A soft food is provided for those birds which will take it, by no means all, made of Spratt's cod-liver oil, cage-bird food, to which is added a little Bemax and Atora or shredded suet.

Two tablespoonful of C. L. A. Food is damped to a crumbly consistency with boiling water; to this is added a teaspoonful of Bemax and one of suet and well mixed by stirring with a flat piece of wood or a fork. This quantity will fill two shrimp pots and in my case is used up in one day.

Bemax, sold by chemists, is the proprietary name for prepared germ of wheat, and is one of the chief sources of Vitamin B. I use the shredded suet because of its convenience, beef suet gratered would do just as well. Pekings are very fond of this and their coats indicate the value of the fat in their tightness and shininess.

Now comes the important question of green food. For nine months out of twelve, there is no trouble to anyone with a garden. Anything green is acceptable, hence all weeds of whatever description may be scattered on the floor of the flight. For the three dead months—January, February, March—when it is often difficult to obtain anything green except grass, a few sods are given and as pecked bare renewed.

With regard to the floor of the flight I prefer earth to concrete and then it can be raked over once a week, all rubbish removed, and forked over every three months where there is bare soil. There is no doubt birds find lots of interest in soil and about plant roots.

As to water, have it running if you can, and in any case see that there are no perches immediately over any receptacle containing it for drinking. I keep a meal-worm box going and supply a few now and then but not as a regular part of diet.

I hope other members will follow my example and give me the benefit of their experience.

REVIEW

LES OISEAUX, Vol. I, Seconde Edition

This is a completely new edition of the work issued in 1925, which was the French version of our own *Aviculture*, vol. i. It will be remembered that this manual of aviculture was published conjointly by the Avicultural Society and la Société nationale d'Acclimatation de France, and was the work of various writers, all authorities on their subjects.

This new edition has been completely revised, in fact almost rewritten by MM. Delacour and Legendre, and is a masterpiece of compression and information. The volume now under consideration deals with the *Passeres*, the account of which is preceded

by an Introduction dealing fully with the feeding, housing, and all the needs of birds in confinement. The families, from the Crows to the Tyrants and other *Anisomyodi*, are dealt with in order, and every species of avicultural interest receives due attention, the most modern classification being followed, and the nomenclature generally brought right up to date. The original plates are reproduced and a few additional coloured ones included. Its authors deserve the thanks of everyone interested, and we can only hope that the Council of our Society will be able to take advantage of their work and produce a translation as the new edition of *Aviculture*, vol. i.

OBITUARY

MR. SAMUEL MCGREDY

Mr. J. O'N. Blair writes:—

As a member of the Avicultural Society, I wish to draw your attention to the death of Mr. S. McGredy, Ashton, Portadown, N.I. Mr. McGredy was a member of our Society, an ardent Aviculturist, and a great public figure. He was the head of the famous firm of S. McGredy & Son, Portadown, whose famous nurseries are known throughout the world. I think I can safely say they are the largest rose growers in the world, and the firm have carried off for years all the premier awards in every country they have exhibited in.

Mr. S. McGredy, who has just passed away, had a very fine aviary at the nurseries that was a great attraction to all who visited them, and there were thousands annually. He also had a fine aviary at his house, "Ashton."

He was a most popular man with everyone; generous and courteous to all who came in contact with him. He also was a great breeder of smooth-haired fox terriers, and here again won premier awards at home and in the principal shows in England.

His loss is a great one in every respect. He was just in the prime of life, and leaves a widow and three children.

I thought you would care to know these facts.

It was through Mr. McGredy's enthusiasm that I got interested in aviculture, and there are many interested likewise through coming in contact with him and seeing the love he had for all his feathered friends.

He was always most anxious to give advice and assistance to amateurs who asked for same. Personally, his generosity and kindness to me, and I am one of many, are never to be forgotten.

CORRESPONDENCE, NOTES, ETC.

DANGER IN DUSTY SAND

Probably many of us have lost birds at times in circumstances which baffle us. I had a case in point last year when a Parrot Finch died and the post-mortem showed pneumonia.

Now this bird had been kept in an aviary the temperature of which was thermostatically controlled at 60° F. and a maximum and minimum thermometer was always in the aviary and showed that the temperature had never been below this. It is a well constructed place, nicely ventilated but definitely without any draughts. The bird had been in fine form for quite a time. However could it get pneumonia? And what could one do more to prevent a recurrence?

I venture to suggest that we often invite lung trouble in our birds by the sand we use on the floors of cages and aviary shelters. Sand consists almost entirely of silica, and it has been known for a long time that silica dust breathed into the human lung has a most harmful effect and eventually proves fatal through silicosis. In industries handling materials with a high silica content very elaborate precautions are taken by means of ducts to draw away this fine silica dust, and compensation to the next of kin has to be paid for deaths resulting from this cause.

The silica itself is not harmful, of course, unless it is in such fine particles as to be carried about in the air and these fine particles are most easily airborne when it is perfectly dry. Now one of the easiest ways of getting it perfectly dry is to place a thin layer, as we do, on the aviary floor, and a certain way of making sure that the silica dust does not lie there, but is wafted into the air, is to have a number of small creatures with efficient winnowing implements in the form of wings flying down on to it and rising up from it.

I am informed that in humans the complaint is not easy to distinguish from the ordinary condition of tuberculosis; with lungs as small as those of a bird the task would perhaps be more difficult, or even impossible, but Mr. Gray would perhaps kindly give us his opinion on this.

However, to avoid the risk certain precautions can be taken. One should procure a 50-mesh sieve or riddle, and test in a *perfectly bone dry* state the sand one uses with this (a 50-mesh sieve is one which has 50 apertures to the linear inch). One can soon prove to one's own satisfaction that any

grains of sand so fine as to pass through the 50-mesh sieve are capable of resting in suspension in the air for a long time.

Sand varies considerably in different districts, but there are few that do not contain a considerable proportion of the harmful fine grains unless these have been washed out. Washed sand is produced in most parts of the country, but is not often so thoroughly washed as to eliminate everything below the 50-mesh sieve, so that even if one is using a washed sand regular testing and sieving will be necessary.

Since I have taken these precautions, I have had no case of pneumonia, and I feel certain that we have in the sands we use a potential source of lung trouble.

JOHN WILCOCK.

NEW ZEALAND ZOSTEROPS IN THEIR NATIVE COUNTRY

I have just read Mr. J. W. Taylor's notes on the breeding of the little New Zealand Zosterops. Curiously enough I had been for a walk through some bush this afternoon and had found no less than five Zosterops' nests. We usually call them "Wax-eyes" here.

I have noticed that their nests are usually built in a young totara tree about 4 to 10 feet from the ground. They are not built in a fork of a branch but are woven into the prickly foliage itself. The nests are *all* the same, i.e. moss on the outside with root fibre and horse hairs on the inner surface.

I think that a branch or two of ordinary yew tree would be very similar to the totara. I think it is important to have the correct sort of foliage for them to nest in—I was unable to find a single nest in any trees other than totara.

I have not bred these little birds myself although I had some for a short while. I found that they did well on apple, bread and milk, and an occasional fatty bone.

I have noticed them very busy about one of my apple trees which is covered with "woolly aphis" and am inclined to think they are very useful in keeping down blight such as this and rose aphis, etc. They are very tame and during winter will come to the door to be fed.

I hope that these few notes may be of some help.

ALEX. R. STRANG.

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CONTENTS

	PAGE		PAGE
The Abyssinian Cliff-Chat (<i>with coloured plate</i>)	33	Breeding Results at Balcombe, by Dr. E. HOPKINSON, C.M.G., D.S.O.	55
Notes on New Zealand Birds (<i>cont.</i>) by SYDNEY PORTER	34	Correspondence, Notes, etc. :	
The Genus <i>Sporophila</i> (<i>cont.</i>), by A. MORRISON	43	The Dark Golden Pheasant; Breeding the Linnet; The Painted Finch; Wintering Sun-birds in the Open	57
My Pheasant Collection, by CAPTAIN C. SCOTT HOPKINS	51	Errata	58

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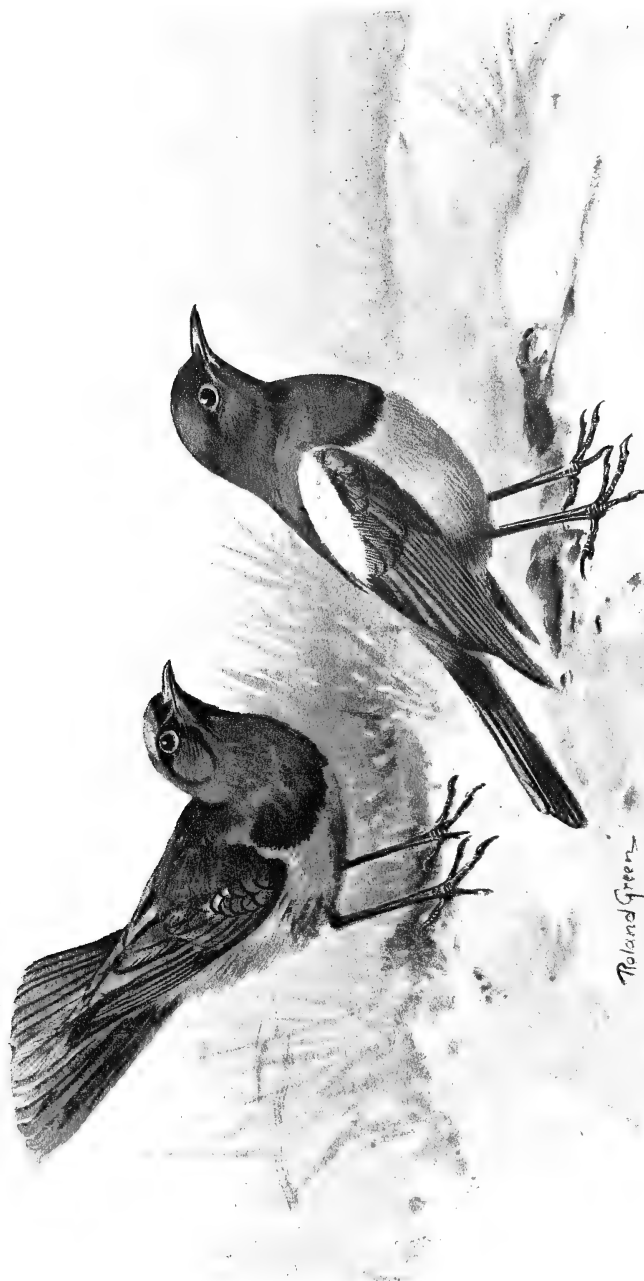
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Roland Green

Abyssinian Cliff-Chat
Thamnolaea ninnimmehensis abyssinica (Pinn.)

THE AVICULTURAL MAGAZINE

THE JOURNAL OF THE
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THE ABYSSINIAN CLIFF-CHAT

(*Thamnolæa cinnamomeiventris albiscapulata*, Rüpp.)

This species was imported a few years ago. I saw four or five pairs at a dealer's and bought the lot. They were in poor condition and only two pairs survived, one of which was presented to the Zoological Society and the other to Mr. C. H. Heal, who, I believe, still has both birds.

Practically nothing is known of the species in a wild state, but Mr. C. S. Webb has observed an allied race (*T. c. cinnamomeiventris*) in Portuguese East Africa, which, he says, is only found flitting about rocks, where its movements are singularly graceful and delightful to watch. The song is loud and may be heard at a considerable distance. Strangely enough in captivity I have only heard the female sing. The Plate gives an altogether excellent idea of the grace of the bird, the tail being raised and spread partially almost with every movement. The male has the head, neck, back, upper breast, wings, and tail black; the lower breast and abdomen cinnamon, and the scapulars pure white. The female differs only in having the scapulars black.

The range of the species is from Bogosland to Harrar, and to the Sudan border at Fazogli on the Blue Nile.

A. C.

NOTES ON NEW ZEALAND BIRDS

By SYDNEY PORTER

THE SOOTY SHEARWATER OR "MUTTON BIRD" (*Puffinus griseus*)

(Continued from Vol. XII, page 237)

One of the most interesting periods spent in New Zealand was a sojourn amongst the "Mutton Bird" Islands in the far south of that country. Through the kindness of Mr. Corbet, of Invercargill, a member of the Avicultural Society, arrangements were made for me to go to Stewart Island and to be picked up there by the owner of a yacht and to cruise for a period around the islands off the south of Stewart Island. We were held up for several days at Half Moon Bay, the one and only settlement on Stewart Island and probably the most southern township in the world.

The "Mutton Bird", otherwise the Sooty Petrel or Shearwater, is an important article of commerce amongst the Maoris of Stewart Island and the extreme south of the South Island. The small islands where the Petrels nest have been held by certain families for many centuries and the right of taking the birds is held by their descendants. At the beginning of the Southern summer the birds gather from all quarters of the globe, coming from as far as Greenland, Alaska, Labrador, and many parts of the Arctic Ocean, traversing many thousands of miles of ocean spaces and in time arriving at the tiny islands in the far south where they first saw the light of day. The gathering of the Petrels from all quarters of the globe is truly one of the greatest of bird mysteries.

A long burrow is excavated in the loamy soil amongst the dense scrub which covers the islands. These vary greatly in length, some being only a few feet long, while others are from 10 to 15 feet in length, the longer ones being no doubt old burrows in which fresh excavations have been made each year. It is an amazing thing that the birds are able to tunnel through the very fibrous mould with their seemingly fragile beaks and weak legs. The space being so limited, the same nesting holes are used year after year. Often the entrance hole is made under the roots of a tree or a fallen log.

The young are hatched about Christmas time and are ready for

the "mutton birders" who arrive about the first week in April, and immediately take samples of the birds. The Maoris can usually tell whether the birds are ready by the presence of down adhering to the roots at the entrance of the nesting hole. This means that the young one is getting past the downy stage and is coming to the entrance of the burrow each night to shake the down from the plumage. Some of the "mutton birders" possess dogs who scent the birds which are then dug out. Usually the depth of the tunnel is tested by a long stick and an entrance is dug from above where the young one is judged to be. The birds are killed by hitting them with the fist on the back of the skull until it is broken. A heap of birds are collected and stripped of their body feathers, great heaps of downy feathers in the bush denoting where the men have been working.

The work is started at 7 a.m. and is continued until 2 p.m., when each person has collected from sixty to seventy birds, which are then tied into bundles of ten. Arriving at the hut or place where the work is done, the birds are dipped into boiling water and the remaining down plucked off. They are then hung up in bundles and allowed to stiffen, this is because the birds are so tremendously fat that it is necessary for them to harden before they can be dealt with. After hanging for two or three days, the Petrels are taken down, the head, wings, and tail cut off, the body split out, and the inside taken out. The birds, or rather what is left of them, are then packed flat into barrels, each layer being salted. These are then left for two or three days, after which they are taken out and packed with salt into bags very ingeniously made out of the stems of a giant kelp, a species of seaweed, which attains a gigantic size in the seas in the far south. When each bag is full it contains from 30 to 100 birds, according to the size.

These bags when full resemble great transparent yellowish bladders. Birds which are small or in poor condition are boiled in their own fat and also put into the kelp bags. When the sacks, which are pear-shaped, are full, they are covered with Totera bark and the base is then placed in a Maori "kit" or bag of woven flax. The birds are now ready for the market and will last, preserved in this way, for over twelve months. The price varies from 9*d.* downwards. Now 5½*d.* is the price paid per bird to the "mutton birders".

The "torching" seasons begins about the 2nd May. The young birds which have not been caught in their holes now come out at night to preen their plumage and get rid of the down which still adheres to the plumage prior to taking their first flight to sea. The nestlings are dazzled by the light of the torches and get too confused to return to their homes. During this season 300 birds are often taken in a single night by one man. A family of three people will take from 6,000 to 7,000 birds in a season. One old "mutton birder", who had been plying his trade since 1875, told me that the birds were on the increase, but I can hardly see how this is possible as the birds only lay one egg in the season. I think he thought I was a Government inspector, down to make inquiries respecting the protecting of the birds.

The young birds are fed by their parents during the night only, upon an oil-like liquid which the young bird vomits up when handled or frightened. They get enormously fat and are, after a time, deserted by their parents; the young birds gradually get thinner until at last, having got rid of all the down and in perfect plumage and a normal weight, they then make their way from the nesting holes towards the edge of the cliffs or rocks, from whence they throw themselves into the air, and so the adventure of Life starts, and what an adventure it is! For nine months of the year they are wanderers on all the seven seas, never once touching land in all that time.

On one of the islands, I forget its name now, I met an old Maori, 90 years of age, a rare relic of the pre-British area. He explained to me the old Maori method of procuring the birds, which differed considerably from the methods employed to-day. The birds after being hung for two days were boiled in their own fat in an elaborately carved wooden vessel known as the "Hipu-titi". It was hollowed out of a tree-trunk and shaped like a small canoe with a swan-neck shaped spout at one end for pouring the oil out. The method was to put into the vessel a certain amount of mutton-bird oil rendered from the offal of the birds, then the cleaned bodies were placed in this and the whole brought to a boil by placing red hot stones in the fat. After a time the bodies were taken out, placed in the kelp bags, and the whole filled up with oil. Earthen or iron pots were unknown to

the Maoris, neither was salt. The old Maori and his family were some of the few still practising the old method of killing the birds by bending the head forward and biting through the spinal column with the teeth. I was told of albino birds being sometimes found, also more rarely khaki-coloured ones.

The nest of the birds seemed more plentiful in the dense undergrowth of a peculiar plant superficially resembling rhubarb. It was impossible to walk through these parts without falling down the holes. The most remarkable thing is that after the birds have fed the young ones during the night, they cannot take flight again off the ground but have to shuffle (these birds cannot walk owing to the weakness of the legs) through the undergrowth to the edge of the cliffs or rocks often a quarter of a mile away where they throw themselves into the air. The nesting habits of the Petrels are one of the most fascinating studies of any known bird, and the more one studies them the more strange and mysterious do they appear. Why these birds should gather from all parts of the oceans to these small islands and go to so much trouble and spend so many months every year in the process of reproduction when they could easily nest as Sea-gulls do, for they have no natural enemies that we know of, is a mystery that we shall never fathom.

During the nesting season the birds keep together in flocks not far from the coast, though, of course, odd ones are often seen. The birds during their fishing look exactly like giant Swifts; they are the same shape, colour, and their flight is very similar, for the birds possess the small, narrow, sickle-shaped wings which they flutter in the same manner as a Swift.

I think a great deal of the food is taken on the wing, for the birds circle round and round seeming just to skim the surface of the ocean with their bills. The birds are also able to dive and swim under the water. Their food consists of low forms of marine life which float on the surface of the water, plankton, cephalopods, the eggs of various molluscs, etc. I could write a great deal more about these fascinating birds, but space forbids.

THE NEW ZEALAND ZOSTEROPS (*Zosterops halmaturina*)

The little "Silver-eye", "Blighty", "Wax-eye", etc., as it is variously called in New Zealand, has for many years been the subject

of discussion, firstly on account of its origin and secondly as to whether it is beneficial or detrimental to the country.

Prior to 1856 the bird was unknown in New Zealand. After that date small numbers were observed in the South Island which, as time went on, multiplied exceedingly until at the present time, with the exception of the introduced Sparrow, it is certainly the commonest bird in the country. The question arises, how did these birds get to New Zealand? It is difficult to think of these fragile little creatures crossing a thousand miles of ocean without a resting-place. If they did cross it could not have been by their own efforts, they must have been either blown over by some strong wind or carried by human agency, for apart from the effort required they would be unable to subsist without food for such a length of time. The Zosterops are not migrants in the true sense of the word, for though they are nomadic in some countries they never migrate long distances. Then again, it is a strange thing how these birds which belong to a tropical genus could manage to acclimatize themselves to a comparatively cool climate where conditions in winter are often very severe. But be it as it may, we shall never solve the mystery, like the creation of the world it will always be a matter of conjecture. That the bird does feel the severe conditions in the winter there is little doubt, for I have been told by some of New Zealand's hardy "he-men" who lived in huts and tents at high altitudes during the winter-time that the birds would upon occasion crowd into the tents and huts for the little extra warmth and in one case, when the conditions were very severe, the birds crept in under the flaps of the tent until the place was simply crowded with them. This was no joke for the campers, as the mess caused by several thousands of these birds is very considerable, also they ate every bit of food left about. In the southern districts the birds will enter houses in bad weather and consume everything edible, butter, bread, meat, or anything lying about. Needless to say there must be a very heavy mortality in hard weather, especially in the far south and in Stewart Island, though perhaps they would not be so badly affected in the latter place, which is still covered with the magnificent native forest.

When hard pressed nothing seems to come amiss to these birds

in the way of food. In fact at all times their appetite is prodigious, as I have found to my cost.

The New Zealand *Zosterops* is an exceedingly active and restless bird. Living in small flocks they pass through the undergrowth minutely searching every leaf, nook, and cranny for the tiny insects upon which they mainly feed. On their first appearance in New Zealand they were looked on as a great blessing, for they speedily cleared gardens and orchards of all manner of minute insects and pests, especially the blight upon apple trees. Loud were the praises sung of these feathered benefactors, but when the birds took payment for their services, ah, well, that was another thing altogether. We humans do not mind how much is done for us, but how loath we are to give recompense, especially when our servants belong to the animal kingdom. After a while this little bird was reviled on every hand for the damage it did to the fruit crops. That a flock of these birds can play havoc with a crop of fruit I have little doubt, for when through the kindness of a friend in New Zealand I became possessed of fifty of these birds, I was amazed at the quantity of fruit which they consumed. Besides a large amount of soft food they devoured at least half a dozen bananas and about a pound of apples per day, in fact their food bill amounted to something like £1 a week. In feeding on the apples, a small hole was pecked in one side and the whole flesh devoured leaving the skin intact. At first I thought the birds must dislike apples, as I saw what appeared to be the whole fruit intact, but on taking it down I soon found my mistake.

The *Zosterops* are to be found everywhere, from the North Cape to Stewart Island and from the limit of the alpine vegetation to the forests which come down to the seashore. In severe weather it is to be found in gardens, round about houses, and in the centre of the large cities themselves. During the whole time the flock is moving about they keep up an incessant twitter, which is exceedingly sweet to listen to. In fact a large flock of these birds can be heard from a considerable distance from the shore, providing that the sea is calm.

The birds have also a very soft, sweet, warbling song. I have never heard this song from the wild birds, they never seem to have time to

utter it, being too busy searching for their living. But captive birds I had, when they had finished one of their numerous repasts, would all start and sing together in a beautiful soft warble, making one of the most enchanting bird choruses I have ever listened to. I have never heard single birds sing, neither did the few birds which I eventually kept. I almost wish that I had kept the whole flock so sweet was their melody.

In captivity they are charming little birds, always tame and full of the joy of life; they always keep in wonderful condition, except if they begin to pluck each other. In fact I know of no bird more addicted to plucking its fellows than this one. The strange thing is that the birds seem to enjoy being plucked.

Some years ago a small consignment of these birds arrived in this country. New Zealand birds had always been scarce in England, and it was the first time the *Zosterops* had been offered for sale, so I was anxious to get hold of a few. About forty were landed, but in a very sorry state. When I heard from the person who had purchased them from the captain of the ship who had brought them over, there were only six left. I was anxious to have them, but was told that they were in poor condition, and one of the conditions of the sale was that I should come up to London and bring them home with me as they were unfit to stand a long rail journey. Some time elapsed before I got to town, and by that time very few were left. Well, I got a shock when I saw them, it was the first time I have ever seen a bird totally plucked of its feathers and still alive. I have certainly never seen such derelicts, either before or since. One bird certainly had about a dozen feathers, but the others were just miserable palpitating little pink bodies, shivering and drooping with the cold. How they had lived in that state is a mystery.

I hadn't the heart to leave them, for I knew that in the morning there would be several little pink and unlovely corpses. As soon as they were packed up I hurried across London, paying several more calls for birds, and eventually arrived at the station in the late evening. Getting into one of the front carriages, I kept on the heat despite the protests from the other occupants, and arrived home some hours later on a bitterly cold winter's night, expecting to find in the package

several pathetic little corpses, but though they were nearly "passing to that last strange change" their frail and wilting little bodies revived somewhat when placed over a radiator with a temperature of 80 degrees; a light was left burning so that they could feed before settling down for the night. The next morning instead of corpses there were several very lively little naked bodies, though two of them seemed to be shaking with a palsy. Each bird was caged separately, fed on ripe pear, banana, and a good insectivorous food. In each cage was placed a spray of privet in lieu of perches, which was kept alive by being placed in a test tube of water, for I am a great believer in live branches helping to restore a bird when in bad condition. I think it is the Hindus who speak about "prana", the life, from the soil which is obtained through walking barefoot. I think the same sort of thing is transferred to a bird from the living branches.

Each cage was placed over a radiator, and in a few days each bird was washed in warm soapy water to get rid of the sticky glutinous mess which partly covered their bodies. This gave them another setback but, after being wrapped in flannel for a while, they recovered. In a week's time each could boast of about half a dozen pin feathers, they were brighter, and did not shake so much. I am sure anyone seeing them at first would have been unable to tell their species. They might have been plucked Willow Warblers, Wrens, or anything else for that matter, only their beaks gave any indication that they were at all Warblerlike. In a few days the white feathers around the eyes appeared and so in a few weeks the derelicts were saved.

No soul of a lost sinner required as much effort to save as those frail little lives! But to me that is the greatest joy of bird keeping, to restore to health a dying bird.

I find that it is a mistake to feed *Zosterops* on the usual sunbird food, that is the Mellin's, honey and milk. It is too stimulating, and in time seems to affect the bird's brain, and they become mentally deranged. It is certainly useful as a "pick-me-up" for these birds after a long voyage, but should not be continued for long. A good insectivorous food and plenty of ripe fruit is all that any species of *Zosterops* require. Plenty of water is necessary, for they are great bathers. In dry weather in New Zealand one usually sees crowds

around any available little pool, bathing and making a very thorough toilet.

These Zosterops, like most other New Zealand birds, are quite tame and fearless when at liberty.

The nest is a frail but beautiful little cup-shaped structure, and is fastened to the branches of a small shrub by the edges. Usually there is little attempt at concealment. Three blue eggs are usually laid, very much resembling those of a Hedge Sparrow; the young are hatched, grow up, and leave the nest in an incredibly short space of time.

This species is found in South Australia and Tasmania.

THE ROCK WREN (*Xenicus gilviventris*)

One of my reasons for going into the Southern Alps of New Zealand was to see and make a study of the Kea and the Rock Wren. My efforts to make the acquaintance of the latter bird were thwarted, owing to an attack of bronchitis, when I was in the very regions where it was found, in fact I could plainly see its habitat as I lay in bed watching the fleeting shadows of clouds as they darkened the immaculate white face of Mount Cook. So all my information is second-hand, obtained from the alpine guides and from a distinguished lady mountain climber.

These hardy birds inhabit the regions of alpine scrub just below the snow line between 5,000 and 7,000 feet, and are in fact seldom seen below that altitude. Around the Almer Hut at a height of 6,700 feet this bird is plentiful and is exceedingly tame, coming within a few feet of the traveller and picking up scraps of food thrown to it. It is a peculiarly built bird, rather resembling a very compact Dipper with a very short and stumpy tail. It also has the peculiar bobbing motion of that bird. It is entirely terrestrial, living amongst the rocks and sparse alpine scrub. How it manages to find enough insect life to sustain itself in those inhospitable regions is rather a mystery. In the winter I dare say they feed to a large extent upon insects which they find in a state of torpor in the crevices of the rocks. That these birds are extremely hardy goes without saying, or they could not brave the severe storms which rage in the high Alps in the winter time, for from information gathered it would seem that the bird never

descends below its usual habitat no matter how severe the weather conditions.

I was told that the bird was often seen examining and pulling to pieces the flowers of the mountain ranunculus, no doubt in search of insects.

Mountain climbers tell me that it is a most attractive creature and looked on with favour by all those who enter its domain. The only danger to this species is from wild cats, which I have seen at a height of from 4,000 to 5,000 feet: they would make short work of these interesting birds should they reach the districts where they live. Being of feeble flight and of a very confiding nature, it would stand no chance whatever. Already one interesting species of New Zealand Wren has been entirely exterminated by cats, the Stephen Island Wren (*Traversia lyalli*).

(*To be continued*)

THE GENUS SPOROPHILA

By A. MORRISON

(*Continued from page 11*)

HICK'S SEED-EATER (*S. aurita*)

Male.—Upper surface, mantle, wings, upper tail coverts, tail, lores, sides of face, ear coverts, cheeks, throat and upper breast, glossy black with a greenish sheen; a half-moon shaped patch on sides of neck and an irregular band across the rump, white; a double white patch on base of primaries and secondaries, only the former being visible on the closed wing; breast and abdomen, white; sides of body and flanks, black tipped with white; thighs, black, internally white; under tail coverts, white; bill and feet, black.

Out of the breeding season the general colour is brown, with which colour all the feathers are tipped. These tips are gradually shed and the bird assumes its full plumage.

Juvenile Male.—I can find no description.

Female.—Above, olive brown; cheeks and under parts pale olive buff, lighter on the abdomen, which is yellowish white; sides of body

and flanks, olive brown ; thighs and under tail coverts, olive buff ; wing feathers are dull brown edged with olive.

Plate.—Sclater, *Ibis*, 1871, p. 14, pl. 2, figs. 1, 2.

Habitat.—Central America, from Guatemala and Costa Rica to Panama.

References.—Russ, 568. *Avic. Mag.*, vol. ii, p. 57. *Bird Notes*, vol. vi, p. 188.

I know nothing of this bird, but it has been included in the Zoo list.

GUTTURAL FINCH (*S. gutturalis*)

Male.—Above, dark olive green, paler and greyer on the rump, and with black bases to the feathers there ; head and neck, black ; breast and belly, pale sulphur yellow, spotted with black on the sides owing to the black feather bases showing ; under tail coverts, pale yellow ; thighs, yellow with their hinder parts black ; wing feathers, blackish with olive-green edges, broadest on the inner flights ; a yellowish white wing patch is formed by the bases of the inner secondaries ; tail, brown edged with olive green ; iris, brown ; bill, whitish ; feet, brownish grey.

Juvenile Male.—Similar to the female, but shows a good deal of black on the throat and crown ; all, however, concealed by the overlying greenish plumage. Bill probably similar to that of the male.

Female.—Above, olive brown ; lores and feathers round eye, buffy white ; cheeks and under surface of body, ochreous buff ; breast and abdomen, buffy white with yellowish tinge ; sides of body and flanks, olive brown ; thighs and under tail coverts, whitish tinged with ochre ; lesser wing coverts like the back ; rest of wing and tail feathers dark brown with olive brown edges, broader on the inner secondaries ; median and greater coverts have brownish white ends, which form two indistinct wing bars ; bill, horn grey and much finer and more conical than that of the male.

Plate.—*Bird Notes*, vol. vi, p. 60 (male).

Habitat.—Brazil, Guiana, Venezuela, Colombia, Ecuador, Peru, Panama, Trinidad, and Lesser Antilles.

References.—Russ, 569. Neunzig, 233. *Breeding Records*, p. 4.

Butler, 147. *Bird Notes*, vol. vi, p. 68; 1913, 139. *Avic. Mag.*, vol. ii, p. 58; vol. iv, p. 131; 1917, p. 28; 1931, p. 328.

In a wild state the Guttural Finch congregates in small flocks in open country, particularly along river banks where there is abundance of grass, on the seeds of which it subsists. It is a familiar bird, coming quite close to houses, and it sings continually. The nest is usually placed in a low bush and is somewhat loosely made of grass stalks. The clutch is said to consist of two eggs, pale greenish white in colour, marked with various shades of brown.

The Guttural is quite freely imported and is a most charming bird in captivity. It is hardy, pretty, very good tempered, and a delightful songster. In an aviary it is inclined to be rather retiring if there is any cover available. It has been bred occasionally, for the first time in this country by Page in 1912. A German aviculturist obtained eggs from a cross between the hen Guttural and cock White-throated Finch.

COLLARED FINCH (*S. cucullata*)

Male.—Upper surface black with shoulders and lower back grey, the latter washed with ochre; rump, a deep ochre brown; upper tail coverts, blackish edged with dark grey; lores with a creamy buff spot; ear coverts and feathers round eye, black with a creamy buff spot below the fore-part of eye; cheeks and throat, creamy buff washed with ochre; sides of neck rich ochre, extending backwards so as almost to form a collar; fore-neck with a broad black band; chest and under surface, pale tawny buff; thighs white, black posteriorly; wing coverts, black with grey edges; inner lesser coverts and tips of inner median coverts, bright ochre; rest of wing feathers, black edged with grey; inner primaries externally white at the base, forming a white wing spot; under wing coverts, white; tail feathers, black edged and tipped with brown; irides, brown; bill, horn grey, with a dark base and yellowish tip; feet, pale horn colour.

Juvenile Male.—Similar to female, but the black feathers show at an early age.

Female.—Above, brown edged with olive on the head and back; upper tail coverts, dark brown with paler margins; sides of head and

under surface light tawny buff, paler on the abdomen and deeper on the under tail coverts; under wing coverts, whitish washed with yellowish buff; lesser wing coverts like the back; rest of wing feathers greyish brown edged with olive, or on the coverts with pale brown; tail, dark brown with paler margins.

Plate.—Neunzig, p. 237.

Habitat.—North Brazil to Guiana.

References.—Russ, 568. Neunzig, 237. Butler, 148. *Breeding Records*, p. 4. *Bird Notes*, vol. vi, p. 183.

The Collared Finch has been occasionally imported, but not, I think, of recent years. A pair bred with Dr. Russ, laying two eggs in a small deep nest built in a bush. Two would appear to be the regular number for the clutch with *Sporophila*. It is a peaceable, good-tempered species and it possesses a pleasant soft little song.

The Southern Collared Finch (*S. collaris*) is included in Neunzig and Russ as being occasionally imported. It is also in the Zoo list, possibly in error for *cucullata*. The male differs from *cucullata* in having the upper surface, sides of neck and rump, whitish, and the lower back and thighs ashy grey. For all practical purposes the female is probably indistinguishable, but is differentiated by being more sandy above and more tawny below, with the wing spot formed by the bases of the inner primaries a more yellowish white. Curiously enough *collaris* is said to be a much finer songster than *cucullata*. It comes from South-Eastern Brazil.

BLACK-BANDED FINCH (*S. torqueola*)

Male.—Crown, nape, neck, mantle, and back, black; rump, cinnamon brown; throat, whitish; a black band across the fore-neck; a large patch of white on the sides of the neck forming a half-collar; cheeks and under surface, pale rufous buff; thighs white, black posteriorly; wing feathers, black with a white patch at the base of the outer web of the inner primaries; tail feathers, black fringed with pale brown; iris, brown; bill and legs, blackish.

Out of season, all the black feathers become edged with brown, and the white half-collar is tinged with sandy buff.

Juvenile Male.—Similar to the adult male, in seasonal plumage

being brown instead of black ; the black collar is absent ; the colour below is much paler.

Female.—Above pale olive brown, slightly ashy on the head and neck ; sides of head and under surface olive brown, paler than the upper surface ; abdomen, lower flanks, and under tail coverts, pale sandy buff ; lesser wing coverts like the back ; wing feathers, dusky brown edged with olive brown ; under wing coverts, dirty yellowish white ; bill and legs, blackish.

Habitat.—Mexico.

References.—Russ, 572. Butler, 146. Neunzig, 237. *Bird Notes*, vol. vi, p. 186.

This pretty little species was first imported in 1895, and was formerly very rare. This year, however, at least two large consignments have been imported and at present there must be a good many examples in the country. The Black-banded Finch is also known as the White-collared Finch and the Cinnamon Rumped Seed-eater. It is rather a nervous little bird, but is hardy and absolutely harmless. The cock which I possess allows itself to be bullied by almost anything. It has a quiet but pleasant little song, which is, however, very rarely uttered.

I have had four females presumably of this species that all varied a good deal in colour. Although they could not very well have been anything else, they were all much darker than the skins at the Museum. Some of the "hens" that I saw for sale were yellow-billed birds, undoubtedly the immature cocks of some other species.

MORELETI FINCH (*S. moreleti*)¹

Male.—Upper surface and sides of head, black with a broad white band across the rump ; moustache streak, throat, and sides of neck white, the latter extending backwards and forming a half-collar ; fore-neck, black forming a broad collar ; remainder of under side, white with a slight tinge of ochreous buff ; under tail coverts, creamy white ; thighs, black tipped with white ; wing coverts, black tipped with white ; middle primaries with the bases of both webs white, forming a double wing bar ; under wing coverts and axillaries, white ; upper

¹ See plate for January.

tail coverts and tail feathers, black; bill, black; iris, dark; feet, blackish brown.

Juvenile Male.—At first resembles the adult female and gains the full male plumage in a single moult.

Female.—Above ochreous brown, darker and washed with olive on the top of the head and upper back; lores and eye patch, ochreous white; ear coverts and sides of neck, pale ochreous brown; cheeks and under surface ochreous buff, paler on the centre of breast and abdomen; sides of body, flanks, thighs, and under tail coverts, pale ochreous buff as well as under wing coverts and axillaries; lesser wing coverts like the back; median and greater coverts dusky brown edged with ochreous brown and tipped with yellowish white forming a double wing bar; rest of wing feathers dusky brown, with paler fringes, innermost secondaries tipped with yellowish white; tail, brown edged with ochreous brown; iris, dark; bill, dark horn colour; feet, blackish brown.

Habitat.—Mexico to Guatemala, Honduras, and Costa Rica.

References.—Russ, 572. Neunzig, 235.

In a wild state the Moreleti Finch inhabits farmland, frequently consorting with Jacarini Finches. It is common near houses and is a friendly bird. Seeds, berries, and insects are eaten, and it breeds in January and February, building an open nest low down in thick bushes. The clutch consists of two or three greenish-white eggs with brown markings, and the hen alone incubates.

It is occasionally imported, but is quite one of the most delicate Sporophilæ. It is probably confused at times with the Black-banded Finch, which it somewhat resembles. Mrs. Wharton-Tigar exhibited a cock at the Palace two years ago, but it did not live for very long. The one specimen I have had only lived a week. It might possibly prove easier if fed principally on insectivorous food.

RUFIOUS-COLLARED FINCH (*Sporophila ruficollis*)

I can find no description of this extremely rare Finch. There is only one skin at the British Museum, that of a not fully adult male, and I have not had an opportunity of taking a description of this.

Habitat.—Brazil, Bolivia, Paraguay, and N. Argentine.

References.—Russ, 570. *Avic. Mag.*, 1931, pp. 228, 289.

The one and only example of this Finch which has ever been imported came into the possession of Captain Hammond about 1930. It was a pretty little bird, and its owner kept it for several years in perfect health and condition. Although I saw it several times it was in the days before I was interested in *Sporophilæ*, and I can remember nothing about it. It is unlikely that such an extremely rare bird will ever again be imported save by accident.

(Does any member know what became of this bird?—A. M.)

MARSH FINCH (*S. palustris*)

Male.—Top of head, hind neck, upper back, and shoulders, blue grey, marked with indistinct dark feather centres; rest of upper surface, bright bay; tail coverts, blue grey; lower eyelid, sides of head and neck and foreneck, white; rest of under surface, bright chestnut brown with ashy grey thighs; wing coverts, blackish edged with dirty grey; rest of wing feathers, blackish with slate grey edges, paler on the primaries and white on the inner secondaries; bases of the inner primaries are white, forming a wing patch; under wing coverts, whitish; axillaries, chestnut brown; tail, blackish with whitish grey edges; irides, dark; bill, black; feet, brownish black.

Juvenile Male.—Undescribed.

Female.—Above, dull olive brown; paler on the top of the head and upper back and slightly mottled with dusky bases to the feathers as are also the ear coverts; lores, lower eyelid, cheeks, whole under surface, and thighs, pale ochreous buff washed on the sides of the body with brown; lesser wing coverts like the back; other wing feathers, blackish edged with pale brown; wing patch as in the male but smaller; under wing coverts, whitish washed with yellow; axillaries like the breast but edged with olive yellow; upper mandible, dark horn colour, lower, paler; irides, dark; feet, brownish black.

Plate.—British Museum Catalogue, vol. xii, plate 2 (male and female).

Habitat.—Argentine.

References.—Neunzig, p. 239. *Avic. Mag.*, 1924, p. 117.

This rare Finch appears to have been imported only once, in 1912

to Germany. I do not think it has been imported to this country which is to be regretted as it is a very pretty species.

REDDISH FINCH (*S. bouvreuil*)

Male.—Above, reddish cinnamon deeper on the lower back and rump; top of head, glossy black; lores, whitish; eyelid, black above, cinnamon below; ear coverts, cheeks, and under surface of body, reddish cinnamon, deeper on the sides of body, thighs, flanks, and under tail coverts; wing coverts, black; rest of wing feathers, blackish edged with brownish; above the bases of the inner primaries there is a white wing patch; under wing coverts, white with a black patch at the angle of the wing; upper tail coverts, black, tipped with brown; irides, dark; bill, black; feet, dark blackish brown.

Juvenile Male.—Similar to the female but darker with a rusty brownish under surface; darker wings and tail with a white patch on the wings.

Female.—Above, olive brown; lores, feathers round eye, ear coverts, cheeks, throat, and foreneck, ochreous buff with an olive tinge; centre of breast and abdomen, yellowish white; sides of body and flanks, olive brown; thighs, yellowish white; under-tail coverts, ochreous buff, tinged with olive; lesser wing coverts, like the back, the others brown with olive edges and whitish tips; rest of wing feathers, brown with olive edges except the innermost flights where the edges are greyer; under wing coverts, white washed with olive yellow; tail feathers like the flights but with paler edges; feet, dark blackish brown; bill, black.

Plate.—Neunzig, pl. 8 (male).

Habitat.—Brazil.

References.—Russ, p. 567. Neunzig, p. 238. Butler, p. 146. *Bird Notes*, vol. vi, p. 145. *Avic. Mag.*, vol. ii, p. 57; vol. iv, p. 131; 1931, p. 328.

This delightful species, which always puts me in mind of a miniature Bullfinch, is very common in its native land and ought to be freely imported. Unfortunately this is not the case and it only comes to this country very rarely. I believe that it is more commonly imported to the Continent, where perhaps its charms are better appreciated.

Mrs. Wharton-Tigar brought over quite a large number from Brazil last year.

When newly imported the Reddish Finch is inclined to be delicate, adult cocks to a greater extent than immature birds. Once acclimatized it is quite hardy. In a cage it becomes very tame, and as it is a fine songster, a single cock makes a charming pet bird. It is good tempered though inclined to bully closely related birds. A fine male in my possession which in a flight cage severely persecuted a Black-banded Finch, has in a smaller cage been quite put in his place by an immature Fire-finch.

MY PHEASANT COLLECTION

By CAPT. C. SCOTT-HOPKINS

It is some time since I wrote an article on Fancy Pheasants in this Magazine. It is so seldom that one reads anything on these delightful birds in the AVICULTURAL MAGAZINE, that I feel sure there must be many Pheasant enthusiasts who long to see an article on this most interesting subject. It is not often that I put pen to paper for the public to read, as I do not like publicity, but on this occasion I really feel that the delightful and fascinating hobby of keeping Fancy Pheasants should be brought more fully to the attention of the bird-loving public.

My friend, Mr. P. Lambert, is writing weekly articles on Ornamental Pheasants in *Cage Birds*, thereby doing his best to interest the public in this hobby. He has been the means of stimulating the public interest in Pheasants and he tells me that the demand for these birds has increased tremendously; and what is more, the intelligent interest that people are taking is most encouraging. Mr. Lambert's expenses in stamps alone, in answering the many questions he is asked, is astounding.

I feel that a description of my collection and my experiences published in the AVICULTURAL MAGAZINE will catch the eye of still more enthusiasts who are wavering and wondering whether it is worth while to sink a little money in this venture, or just be satisfied with

reading about them and wondering if what is said about these wonderful birds from time to time is really true. Yes, every word that is put in print describing their beauty and attractiveness is true. But it is quite impossible to describe them on paper. One must see to believe, and then I am sure that many will not be able to resist the fascination and longing to own a pair.

I feel that I can talk with a little *real* experience behind me. I have kept these birds for many years and I think I am safe in saying that I have the finest private collection in Great Britain. I have kept in my aviaries nearly every known variety of Pheasant. Unfortunately there are some of the very rare varieties which it is exceedingly difficult to replace when they die, partly because they are rarely exported and the price is too high. There are over thirty species that one could keep if one includes the commoner varieties, such as the Ring-necked, Black-necked, Melanistic Mutant, etc. I have kept all these, but I cannot spare the aviaries now. My present collection includes the following: Silver, Golden, Amherst, Reeves, Bels, Pure White, Edwards, Soemmering, Elliot, Swinhoe, Monaul, Chiquis Peacock Pheasant, Germain, Peacock Pheasant, Mikado, Satyr Tragopan, Temmink Tragopan, Blyth Tragopan, Borneo Fireback, Siamese Fireback, Vieillot Fireback, Crestless Fireback, Rheinart Argus, Malay Argus, etc.

I have had Bulwer's Pheasant and the Palawan Peacock Pheasant, both very rare birds, and the Imperial, also very rare. The White-crested and Black-crested Kaleege Pheasants are rather dull coloured birds, so I do not keep them now. The Cheer Pheasant, which I have seen but never possessed, is also rather dull in plumage but a nice tractable bird. The Koklass, which I have also seen but never kept, is an attractive bird and very pretty, but I am told they are not too easy to keep alive in this country. These two varieties are not easy to procure as they are seldom exported. I hope, however, to be able to find them soon.

Many of these Pheasants are beyond the purse of most fanciers, but there are very many beautiful Pheasants that can be purchased at a low price. Goldens, Silvers, Amhersts, Bels, Reeves, and Swinhoes are easily obtainable at a price well within the means of most people who are desirous of starting this hobby. *Pure Lady Amhersts* are very

difficult to find and anyone who is fortunate enough to be in possession of pure birds should do his best to keep them pure. I think for beauty and gracefulness the Amherst takes top place. My favourite is the Satyr Tragopan. His colouring is superb and he becomes so tame in a very short time. I think the Reeves and the Elliot are the most timid of all Pheasants, although my Elliots are exceptionally tame. Do not run away with the idea that Fancy Pheasants are on the whole delicate. I think, perhaps, it is this fear that prevents many people from keeping them. They are very hardy. The only two varieties which may require a little extra care during the winter months are the Argus and the Palawan Peacock Pheasant. I have had two pairs of the latter (imported) and I have never been able to keep them alive for long. They are truly delightful little birds, being the most beautiful and the rarest of the Peacock Pheasants. They are only found on the island of Palawan in the Philippines.

All my Pheasants roost out in the open throughout the winter. The house, with which each of my aviaries is provided, is used far more during the summer, as Pheasants do not appreciate the midday sun and prefer to be in the shade. My aviaries are 12 yards long by 4 yards wide and about 6 feet high. I have evergreen trees in every aviary to provide shelter and a pretty appearance. Each aviary has a scratching shed. Some are gravel mixed with sand and some are grass. I am not going to say which are preferable, because both have their good points. It is much easier to keep gravel aviaries clean and sweet. I rake mine every week and once a year I put fresh gravel down. Grass aviaries are more natural and look very nice as long as the grass lasts. It will not last long with Monauls. I should always advise matchboarding allround the sides of aviaries as Pheasants are very pugnacious birds, especially during the breeding season. It will increase fertility and save many a beautiful tail from being broken. Always have plenty of shelters in your aviaries for the hens to take refuge in. Woe betide any Amherst hen who cannot escape from the male bird. This is a *very* important point to remember.

Pheasants which show no hostility and are very docile in the winter

turn into real fiends when the breeding season draws near. I keep Silky Bantams to sit on the eggs. They are light, very good mothers, and will sit on the hard high road when broody. I do not recommend Game Bantams for, although they are good mothers and splendid foragers, it means instant death for any other chick to enter her coop. I know from experience. The only Pheasants I allow to sit on their own eggs are the Peacock Pheasants. If a hen Pheasant will sit, let her, but take away the first three lots of eggs she lays (six eggs in all), and let her sit on the seventh and eighth.

Do not put any other Pheasants with the Peacock Pheasant tribe or you will lose them. They are most pugnacious little creatures, but at the same time most attractive.

I feed my adult Pheasants on wheat, crushed maize, and dari, with a little buckwheat and hemp thrown in, mostly during the winter. Be sparing with your maize in the summer. You will find that Pheasants eat far less than poultry, except, perhaps, the Silver, which I think eats twice as much as any other Pheasant. Pea-nuts they love; I give these as an extra delicacy. Plenty of green food is essential. Lettuce and dandelions in the summer and cabbage in the winter. Fresh water *every* day; don't be content with just giving them fresh water, but first run your hand round the inside of whatever you put your water in, to clean it before replenishing it. A little Condry's Fluid is advisable in the water once a week. Fruit such as bananas, apples, and grapes are greedily devoured; Argus Pheasants must have bananas every day. Some people give them raw meat, I believe they do at the London Zoo, and very well they thrive on it.

When building your aviaries be sure that Sparrows cannot get in or your corn bill will soon double itself! Just give your birds enough to eat and no more. I hate to see corn lying about the aviaries.

I hope that what I have said will encourage still more people to go in for this delightful hobby. Just try it, you will not regret it.

BREEDING RESULTS AT BALCOMBE

By DR. E. HOPKINSON, C.M.G., D.S.O.

The following record of the last few years breeding, though containing nothing remarkable, is perhaps of interest as showing what I rather think is the average happening in the ordinary aviary.

The aviaries were started about 1929 with a house 10 by 12 feet and a flight about the same size ; the following year a larger aviary with only box shelters measuring about 15 by 15 feet was added and this extended to about double the size in 1933. Besides there are about six small aviaries (movable) each with ground space of about 18 to 20 square feet.

BUDGERIGARS.—1931 : Four pairs nested ; a good many young reared and most disposed of. 1932 and 1933 : Much the same results. 1934 : Started with three pairs ; only five young birds hatched out, of which four were reared and they are not good ones.

LOVEBIRDS (Fischer's-Masked Hybrids).—1932 : One pair nested ; nine young reared. 1933 : Two pairs nested ; nine young reared again, one of which showed signs of being partly Peachface, a hen of which shared the aviary. 1934 : Only two hybrids left ; in the autumn of 1933 I thought I had kept a true pair of the hybrids and a hybrid cock and a hen Peachface. The last and one of the hybrids died in the winter and the two remaining have done nothing in the nesting line. I expect both are hens.

GREENFINCHES.—1932 : One pair had two nests and one young one left the nest from each, but only one was alive in November, and still survives. 1933 : Two pairs nested, six young left the nest, three alive in November. 1934 : Two pairs nested, twelve young left the nest ; nine still alive and well over the moult in October when they were moved to an aviary to themselves. Then they began to die, going light one after the other till only three were left, which were returned to the big aviary, where they and the parents still survive. One of each of the 1934 parents was aviary-bred here, the cock in one case, the hen in the other.

CAPE CANARY (Grey-necked Serin).—1932 : Two mules from a hen

Canary hatched from two nests. One still alive. 1933 : The same. 1934 : No young, but the two earlier mules still flourishing.

ALARIO FINCH.—1932 : One mule, Alario \times Green Singing Finch, reared and still alive, December, 1934. It is an ugly all-brown bird, more like a hen Alario than anything, but cannot be that, as this cock is the only bird of the species I have ever had.

YELLOW SPARROW.—One pair 1934, three nests. First, eggs only ; second, three young hatched, which when about ten days old and showing three long clamouring necks and fat bodies died from neglect, and having a third nest built over them ; from this one young bird flew in October and is still alive and indoors for the winter.

GREY CARDINAL and POPES.—A very old cock Grey Cardinal which I have had since 1922 and which has been twice to Africa and back was given two hen Popes in 1932. Two well-made nests were built (mostly the work of the cock) and two clutches of eggs laid, both hens sitting a little, but not for long and nothing resulted. 1933 : Only rough nests and an odd egg or two. 1934 : Neither nests nor any inclination to breed, but the three old birds still thrive.

CORDON BLEUS.—1930 : Seven survivors of birds I had brought from Gambia, five cocks and two hens. 1932 : Three survivors, all cocks and all at least five years old. 1933 : One paired with a new hen : eggs only. 1934 : A new pair built three nests and laid three clutches of eggs but none hatched, or, if any did hatch, only lived a day or so.

ZEBRA FINCHES.—1932 : One old pair and two young hens. The pair had young hatched but killed by a Budgerigar. 1933 : Two pairs ; both nested ; about a dozen young left the nest but only three of the young were alive in November. 1934 : Two pairs nested, one in the big aviary with a crowd of other birds, one in a small aviary to themselves. Many hatched and fourteen young flew ; nine young and the two old pairs still alive, December. One of the pairs had two nests of four young in each, but in each family there was one deformed bird with no bastard-wing, which soon died.

CORRESPONDENCE, NOTES, ETC.

THE DARK GOLDEN PHEASANT

In last month's issue of the Magazine there appeared an account of the Dark Golden Pheasant (*obscura*). This article is of course very interesting, but considering that the form is purely an artificial one, may I as a member of the Society suggest that too much prominence be not given to these forms; I say this because already with nearly every change of blood these varieties crop up and spoil the true *T. picta*. Further, that being in the same category as White Mice, White Pigeons, and Canaries, they are rather outside the scope of this Magazine.

A. F. MOODY.

BREEDING THE LINNET

In the December issue of the AVICULTURAL MAGAZINE I note that Dr. E. Hopkinson in his Breeding Records asks if there is any really good record of the Linnet having been bred.

I have been a breeder of British birds since 1923, and during the period from this date have bred at different times the following: Linnets, Bullfinches, Lesser Redpolls, Chaffinches, Yellowhammers, Greenfinches, Goldfinches, and Siskins.

At the present moment I have the following young birds just finishing their first moult: four Greenfinches, four Linnets, three Lesser Redpolls, all fit and in fine health.

The four Linnets are ringed as follows: 7-5-34, 11-5-34, 28-7-34, 2-8-34.

I have had three nests from parent birds, the cock being 2½ and the hen 1½ years old.

W. H. POTTER.

THE PAINTED FINCH

By this further letter of mine you will be thinking no doubt that they will never end. The fact is, however, that I have discovered another point relative to the breeding of the *Emblema picta* which I think is worthy of note. If so, you may add to my former article.

The hen bird leaves her young at night from ten days old, unlike the Gouldian Finch they are not night feeders. I have observed these facts from a nest built right in the open flight in a hanging basket (fern); the young have practically no protection other than a sheet of iron directly above the cup-shaped nest to protect it from rain.

The last few days from the time of writing the weather has been particularly cold and wet, and I fully expected the young to have perished, but such was not the case. The hen, however, is to be found on the nest first thing in the morning, possibly to revive the young a little as they were showing just the first traces of pin feathers. I consider their resistance to the cold most remarkable; this apparently rough treatment to their young no doubt accounts for the hardiness of this species.

Most of the nests of these birds are dome-shaped and the young would not be exposed to the extent of the unusual nest I have depicted. I have observed other nests of this species and have found that they abandon their young at nights from ten to twelve days after hatching. The crops of the young are well filled at dusk.

I trust these final notes will be of some value to you.

H. S. SEWELL.

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SUNBIRDS WINTERING IN THE OPEN

It may interest aviculturists to learn that I have two Sunbirds in unheated out-of-door aviaries. They are *Nectarinia tacazze jacksoni* and *Cinnyris mediocris usambaricus*. The former was out all the summer, but the latter was only put out in November. Both birds are in fine condition and roost out each on a bare twig in all weathers. Cold and wet have no effect on them at all, and on the worst days they may be heard singing as soon as it is light and throughout the morning.

I have no doubt that many species are equally hardy and will do well all the year round out of doors. Indeed, last winter I turned a specimen of *Æthopyga seheræ seheræ* into an unheated, unsheltered aviary in January, where it was quite unaffected by frost on the very first night, although it had previously been kept in a warm greenhouse. It did well until it made its escape in the early Summer.

Certain Humming-Birds, too, would very probably winter in the open in a sheltered aviary.

A. C.

ERRATA

p. 11. Mr. Yealland's initial should be J, and we wish to apologize for the mistake.

p. 28, l. 27. *Read* spanish *for* sparies.

p. 28, l. 32. *Read* C. L. O. *for* C. L. A.

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The following should have been included in the list of members in the January Magazine, but in error were overlooked, for which we apologize.

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CONTENTS

	PAGE		PAGE
Successful Rearing of the Blue-necked Crowned Crane in Captivity (<i>with plate</i>), by DAVID EZRA	59	The Genus <i>Sporophilia</i> (cont.), by A. MORRISON	69
Some Notes on Feeding, by WINSTON S. ROWE	60	Breeding Results at the Keston Bird Farm, by E. J. BOOSEY	72
Some British Birds in New Zealand, by S. D. POTTER	62	Duck Hybrids, by E. HOPKINSON	78
Two Tame Birds, by W. H. WORKMAN	66	Rearing a Red-and-Yellow Macaw at Lilford, by A. F. MOODY	87
		Correspondence, Notes, etc.: The Crystal Palace Show	88

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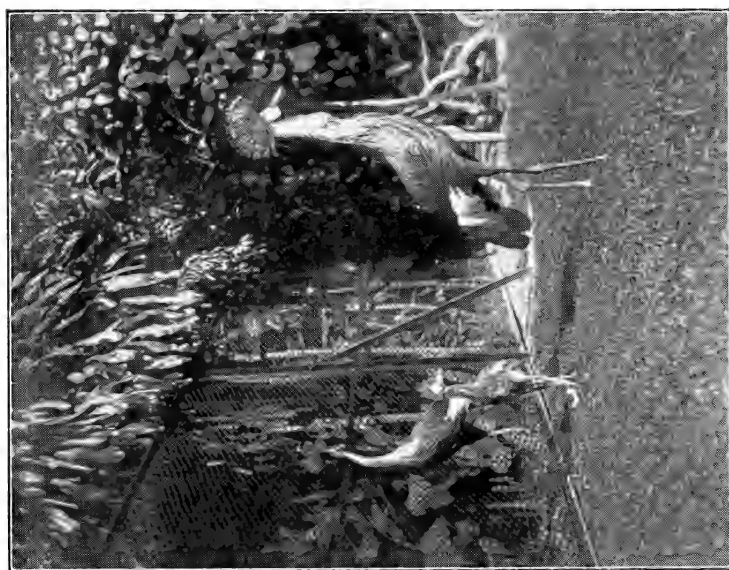
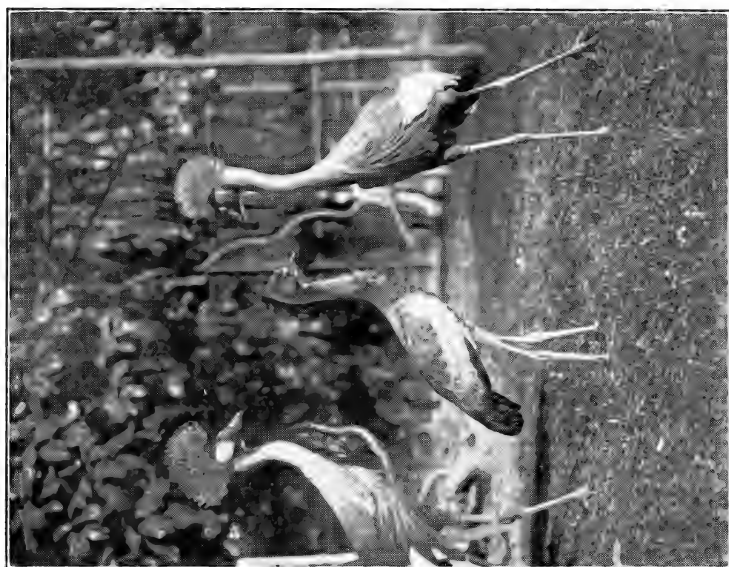
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TWO STAGES IN THE GROWTH OF THE YOUNG BLUE-NECKED CROWNED CRANE.

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SUCCESSFUL REARING OF THE BLUE- NECKED CROWNED CRANE IN CAPTIVITY

(*Balearica regulorum*)

By DAVID EZRA

I have had several pairs of these handsome birds for some years, but as they are kept in a garden of less than an acre, with Sarus, Demoiselle, and Stanley Cranes, as well as Swans, Geese, Ducks, a few antelope and a large elephant tortoise, I never dreamt that they would breed under such difficult conditions. One pair nested last year but the young were not reared owing to an accident. This year the first two eggs were not hatched, but the second two both hatched out. One of the young was a weakling and did not live long, and was killed and eaten by rats. The other one was a healthy, strong bird, and was well looked after by the parents. To protect this one from rats, I had a very powerful electric lamp burning all night in their pen, and this I am pleased to say, was most successful. The light also attracted a good many insects, which the parents caught and fed the young bird on. The young Crane is six months old now, and is fast coming into colour. He is fed on hard-boiled eggs, grasshoppers cut up, boiled rice, gentles, cockroaches, mixed grain, and breadcrumbs. He is perfectly tame, and feeds from the hand. I am delighted at my unexpected success, and wonder if this Crane has ever been bred and successfully reared in captivity.

[The breeding of this Crane is an achievement, although it may have been bred on the Continent.—A. C.]

SOME NOTES ON FEEDING

By WINSTON S. ROWE

I have just set myself the pleasant task of reading the *AVICULTURAL MAGAZINE* from 1894 to 1930. After a rapid perusal of the later volumes I find that the species in which I am greatly interested are not always discussed at length as regards the feeding. Whereas the species in which I am not greatly interested, have full details! However, by the time I have read thirty-six volumes I shall have found what I require. Meanwhile a few notes as to my own way of feeding may be of interest.

Firstly, however, I have only kept Foreign Birds for just two years, so that I am far from being able to dogmatize.

REDRUMP PARRAKEETS

Age 18 months; aviary $8 \times 6 \times 7$ feet high. Food: 1 dessert-spoonful sunflower daily and a pinch of hemp. If the aviary were of larger dimensions I should increase the amount. Access to canary, white and Indian millet, of which only canary and Indian millet is eaten, therefore I provide a separate dish of Indian millet. After three months they have just commenced to eat soaked oats. These are soaked for 48 hours, approximately two teaspoonsful are provided daily. Groundsel is the only green food appreciated. Apple provided daily, but still untouched. I live in hopes! Fresh water daily. A fair amount of cuttlefish is eaten but no grit, no doubt sufficient of this is found on the groundsel roots.

ALEXANDRINE PARRAKEETS

Cock aged $2\frac{1}{2}$ years, hen over 3 years. Aviary $17 \times 4\frac{1}{2} \times 7$ feet high. Access to canary, white and Indian millet, of which only canary is eaten. Soaked oats daily, same quantity as before. Six peanuts daily. Five or six grapes and half an orange or half an apple. Sunflower and hemp are provided in a tin hopper holding 3 lb. This makes the availability rather more difficult and so tends to obviate the risk of feeding solely on these seeds (?). One or two fresh branches are provided weekly and so far the woodwork has remained free from having chips taken out. I have not yet seen them bathe, they prefer to cling upside

down to the netting in the rain. Netting used is heavy gauge $\frac{1}{2}$ in. I once watched the hen practically walk through some very light netting in a way which made me think my cutters must be blunt !

LOVEBIRDS

At present only Fischers are kept. I have had Masked, Blackcheeked, and Peachfaced. The Peachfaced were only retained for three months. They all had, and the Fischers still have, access to sunflower and hemp mixed, canary, and white millet. Millet sprays occasionally given. Soaked oats daily. Fruit is eaten spasmodically, sometimes none is touched for six or eight weeks. Groundsel is the best liked of all the green foods. An orange seems to be appreciated more in summer. Lovebirds do more damage to their aviary than the Alexandrines. The aviary is also $17 \times 4\frac{1}{2} \times 7$ feet high. I have been very lucky in the past when I mixed some pairs of Lovebirds, i.e. Fischers and Masked, in a large aviary with small Finches. Provided they had branches and canary travelling cages to bite up, no damage was done, but it was hopeless in a small aviary 6 feet square.

The question of supplying sunflower and hemp ad lib. was very debatable. However, I thought that if Primley Zoo could do it, I could ! I never found my birds excessively fat when in a large aviary. In the small 8×6 aviary I lost three Blackcheeks in quick succession from being over fat. When supplying hemp in a separate dish, Lovebirds have a spell of eating large quantities of it and then eat very little for a while.

BLUE CROWNED CONURES

Aviary $14 \times 4 \times 7$ feet high ; age unknown. At present the only seeds eaten are sunflower and hemp, with two to three peanuts. Greenstuff and soaked oats not touched as yet. Half an apple and half an orange or one or the other substituted by grapes or banana are greedily eaten. They frequently bathe. Only being in my possession a month, it is too early to state their likes and dislikes. Both are very intelligent and tame. The Alexandrines, by the way, do not appear very intelligent. I am not quite sure whether these are the true Blue Crowned Conure (*C. haemorrhous*) as the beak is of a medium dark horn colour. The

forehead and vertex being blue distinguish it from the Sharp Tailed Conure. The orbital skin is white.

WHITE BREASTED CAIQUE

Obtained with the Conures. Very intelligent and amusing. At present caged in the house. Has exercise on the floor daily. My pet Fischer Lovebirds enjoy chasing him on the floor until rebuked by his larger beak ! Simply relishes fruit of all kinds ; only touches sunflower and hemp so far. Enjoys being sprayed. There is another aviary, at present empty, which no doubt may become full of youngsters if my wishes become horses !

SOME BRITISH BIRDS IN NEW ZEALAND

By S. D. POTTER, Editor Avicultural Society of New Zealand

Towards the end of last century a veritable epidemic set in to introduce and establish in a wild state alien species of birds.

The principal driving force behind most of these liberations is not hard to find. With the opening up of the country vast areas of virgin forest were cleared, and, as nearly all the native land birds are forest dwellers, they retreated with the forests before the onslaughts of colonization. Consequently these newly cleared lands were practically birdless and therefore had no natural checks on the various insect plagues which periodically descended upon them.

In all, some 130 species were liberated either by Government Departments, private individuals, or Acclimatization Societies. But of this total (perhaps fortunately) no more than thirty have become really established.

Many of these introduced species were chosen for their usefulness, but others were to provide sport, or for sentimental reasons, and some for no apparent reason at all.

In the main these feathered aliens have behaved well. They are, generally speaking, confined to the cultivated areas and, never penetrating far into the forests, do not encroach upon the somewhat restricted strongholds of the indigenous birds.

Two-third of the successful species hail from Britain but actually some of these are decidedly rare and local.

The Cirl Bunting, for instance, had not been recorded for some years until in 1934 an unblown egg was handed to me, which undoubtedly belonged to this species. The Bullfinch and Linnet after a decided increase have now practically disappeared. In fact, the former is probably extinct. The Redpoll is now making rapid strides and like the Hedge Sparrow slowly but surely extending its range northward.

The Starling has multiplied at a phenomenal rate and is now undoubtedly the commonest bird in New Zealand to-day. This increase is all the more remarkable when we consider the acute housing problem of this bird. With few exceptions colonial dwellings do not provide nesting sites for birds, neither are there old ruins, suitable cliff faces, or a plentiful supply of old timber in the cleared areas where the Starling abounds.

In rural districts we find that rabbit-burrows, especially those in banks or roadside cuttings, are the most favoured sites, closely followed by rural mail-boxes. Even those adorned with a loose flap over the slot are not proof against the Starling when he is house-hunting. He just lifts up the flap and hops in. To come out he has only to push against it.

I once discovered a nest in a thick box-thorn hedge. It is an untidy and loosely constructed affair which was only held together by the density of the surrounding twigs. However, a brood of youngsters was safely reared therein. It would be interesting to know if the Starling has been forced to adopt an "open" nest in Britain.

With most farmers the Starling is considered a friend. It haunts areas where the grass-grub is prevalent and also devours the cattle-tick. In orchard districts, however, he is becoming a nuisance and before very long the vast numbers of this bird may become a serious problem.

Once the breeding season is over it is a wonderful sight to see huge armies of Starlings winging their way across the sunset sky to a common roost. There used to be (and may still be) one of these favoured spots near Arapuni where flock after flock would arrive calling as they alighted, while those already there joined in until one had to shout to be heard above the din.

In addition to the insects already mentioned the Starling, in Auckland at any rate, has acquired a decided taste for snails, and cracks their shells in the same manner as a Thrush, but lacks the expertness of that bird, and does not return with each victim to a favoured stone.

The Thrush and Blackbird are both firmly established and the former is highly esteemed both as a songster and for the good he does. Although the Thrush undoubtedly does some damage to fruit, he is by no means the raider the Blackbird is. Consequently every orchardist's hand is against the latter, but his natural wariness and cunning stand him in good stead and he increases in numbers just the same.

In and about many of the larger towns and in most country districts as well are small areas of "bush", a few acres in extent, known as "reserves". These areas are not sufficient to support native bird life and being usually far removed from the forest areas are rarely visited by them. It is in these reserves that the Thrush and Blackbird carry on the work normally done by the indigenous species. Plants, such as the fuchsia, coprosma, and other berry- and drupe-bearing plants, depend upon birds for the dispersal of their seeds. And in these areas a marked increase in the plants of these families is to be seen.

Unfortunately they also disperse the seeds of that terrible weed the blackberry as well. And it is a common sight to find young plants growing in the nests soon after the youngsters have flown.

On the mud-flats thrushes may be seen hammering the shell from the back of a winkle on a rock just as they do from snails in the garden. When one realizes how hard the shell of a winkle is, one cannot but marvel at the power of this bird in breaking it.

The Greenfinch, Chaffinch, and Goldfinch are all firmly established, especially the latter. Goldfinches may be said to be abundant. Flocks of two or three hundred are by no means uncommon during the winter when bands scour the countryside for weed-seeds. The Greenfinch is more thinly dispersed while the Chaffinch is the most local of the three.

The Pheasant is a common object of the New Zealand countryside, though of recent years a marked decline in its numbers has been apparent.

The decrease originally coincided with the use of rabbit poison. Pheasants entirely disappeared from districts where previously they

had been common, and since then in spite of annual liberations, closed areas, and limited "bags" in the shooting season, they have never recovered.

In New Zealand only cock Pheasants are shot, the hens being protected by law. I very much doubt if this policy is altogether wise, as in many districts there are far too many hens for the number of cocks, the result being very poor broods of young. And I know of one definite instance where an old matron, presumably well past the breeding age, wilfully destroyed the eggs of a more fortunate lady.

Judging by the contents of the various pheasants I have examined, insects appear to be their principal food, especially grass-grub, grass-hoppers, crickets, and, in a lesser degree, wood-lice. Of the wild fruits, blackberry and cape gooseberry seem to be the most sought after.

One curious trait I found with the Pheasants in New Zealand, they almost invariably roost on the ground! The reason for this I cannot ascertain.

The Grey Duck, which is the commonest native duck, inhabits the larger areas of water during the non-breeding season. Consequently those interested in shooting clamoured for a bird that would dwell all the year round in any little creek or stream. In due course the Mallard was introduced as the answer to their prayer.

It is with some hesitation I include the Mallard in the present article as its establishment is something of a joke on the one hand and a tragedy on the other. Within a fortnight of their liberation in the Auckland Province almost every bird was feeding in somebody's back-yard. They were caught up and again released. But they resolutely refused to be turned out into the hard, cold world when there was food in plenty in the nearest fowl-yard.

However, at last some evidently lost themselves and became established in the wild state but, although they were not averse to the little creeks and streams during the breeding season, they agreed with the native Greys that the larger waters were much more desirable during the shooting season. In fact, so closely did they adopt the habits of the Grey that the two have now commenced to hybridize and, if the powers that be continue to liberate Mallards, New Zealand lakes are likely to be populated with a race of mongrels.

The Skylark is very common in the open country, and except perhaps in grain-growing areas and in market gardens does very little damage. This bird was presumably introduced for sentimental reasons and, personally, I consider it an acquisition. Our farm lands, unavoidably destitute of native bird-life, would undoubtedly be dreary indeed without the Lark carolling about.

I once had a rather curious experience with a Skylark and, although it has nothing to do with the present article, it may be of interest. Crossing a paddock I discovered a Lark's nest containing three eggs, which I decided to photograph. Dropping my hat near it to mark the spot I returned home for a camera. On my return, some ten minutes later, imagine my surprise to find the nest empty! Searching the immediate vicinity a Lark flew up and going to the spot I found an egg quite intact. About 12 yards from the nest was a second egg, but this was broken. The third was never recovered. Has anyone else known Larks to remove their eggs to safety? For I presume the presence of my hat caused them grave concern.

TWO TAME BIRDS

By W. H. WORKMAN

I wonder how many of our members have kept in their outside aviaries really tame birds; I mean by really tame embarrassingly tame. Certainly, up till 1934, I never knew what a really tame bird was like, until one day in the autumn of 1933 Lady Dunleath showed me her Shama and Golden-fronted Fruit Sucker. They were very tame, sitting on her hand and eating mealworms from her fingers. I there and then made up my mind that I would get one of each on the first opportunity.

I asked Mr. Chapman to let me know when he had a really good importation of the above species from India and sure enough in April I heard from him and eventually received a beautiful Shama and Fruit Sucker, thinking these two would agree in a very large flight cage till the weather was warm enough to put them in one of the aviaries. I put them together: for a day or so all was well, till "Jimmy", the

Shama, got his tail up literally and metaphorically, so that when a mealworm was put in the cage Jimmy, not taking any chances, darted first at the Fruit Sucker and, catching him by the neck, knocked him off his perch on to the bottom of the cage. After putting him out of action he would return to his mealworm. This, of course, could not go on as sooner or later the poor Fruit Sucker would be put out of action for good and all or else die for want of live food. I therefore had to separate them, and another flight cage, not quite so large, was procured for the Fruit Sucker. They became fairly tame but they really are not good cage birds ; so very soft feeders make an awful mess of the cage and surrounding carpet, etc. Whilst in the cage my method was to put a thick layer of sawdust on the cage tray over which a piece of newspaper the full size of the tray was spread. This newspaper had to be changed every day, otherwise things got smelly.

By the end of May the weather began to get really warm so I took the opportunity of turning the two villains out, thinking that, in a really large aviary having a flight of 20 by 10 ft. well planted with a large shelter house 10 by 10 ft., there would be room for both to live at peace as in Lady Dunleath's aviaries, but not a bit of it. The Shama went for the other bird like a spitfire, so again we had to separate them, and strange to say they don't interfere much with other birds of the seed-eating variety.

From that time on these two birds became excessively tame. In fact, the Shama is embarrassingly so ; immediately I enter the aviary he makes a dash at me, and lights on my wrist so as to be absolutely on the spot when the mealworm box is opened. It is impossible to get rid of him ; throw him off one's wrist and in half a second he is back again, tail cocked up, chatting away. Off comes the box lid and, before I can pick out a mealworm, he has his head between my fingers and down go two or three at a gulp. By this time I have managed to get hold of one, put the lid on the box, while he is on my wrist again and his morning allowance of about six mealworms is a thing of the past. I may say he gets the same in the evening five days out of the seven. The difficulty now is to get out of the Shama's aviary and into the Fruit Sucker's, but eventually I get rid of Jimmy and successfully make my exit unfollowed.

The Fruit Sucker is waiting for me on a branch. He is much more of a gentleman and quietly lights on my finger while I pick out the mealworms and give him his allowance, his little white tongue darting in and out like a snake's. He is in absolutely perfect plumage, a picture, every feather in place, and as close and compact as a really healthy bird should be. This has undoubtedly been achieved since he got into the large aviary where he has free access to the open flight and a shallow bath in all weathers, but at night he comes into the slightly heated shelter and goes to sleep in an old box cage which I think gives him extra protection. The Shama, too, is in perfect blue-black, white, and chestnut plumage with a glorious long tail, so different from the miserable one all frayed with which he arrived in April.

Many people are frightened of insectivorous birds because of the soft food that has to be made up daily for them, but this fear is more imaginary than real because soft food can be made up in a few minutes from a few staple ingredients. They are as follows :—

- (1) The dry insectivorous food which keeps indefinitely.
- (2) Boiled rice, boiled by the cook dry as for curry.
- (3) A good carrot for grating.
- (4) A simple sponge cake also made by the cook.
- (5) Mealworms.
- (6) Fruit.

To make up the insectivorous food for these birds I take about two dessertspoonsful of the dry food, add about a teaspoonful of the rice, and crumble in sponge cake about the size of two walnuts. Grate in about $\frac{1}{2}$ in. of a good thick carrot to supply moisture. If you have no carrot handy use water, but carrot is best. Mix well together into a crumbly mixture and fill a shrimp pot for each bird, which is enough for a day.

The Fruit Sucker must have fruit and I give him the following variety as obtainable but only one sort each day : one-quarter orange, one-quarter small red American apple, 1 inch of banana, two or three green grapes, or a bit of pear or two strawberries. The Shama does not care for fruit although I give banana or apple to him, but I think the Pekin Robins take it.

I hope the above notes on these two delightful species will encourage

members like myself who are, perhaps, a little frightened to attempt to keep tropical soft-billed birds ; they will be well repaid for the little extra trouble by the wonderful confiding tameness of both, and if kept as I have described in an outside aviary with slightly heated shelter, say up to 45° on cold nights, they seem to do well. They get plenty of exercise and I believe in not too many mealworms. I believe a large number to be harmful, especially in the summer, when in a planted aviary small flies, etc., are always flying in and out from the surrounding garden.

The following are the proportions by measure for No. 1 “dry insectivorous mixture”, which I find so handy :—

- 4 parts fine biscuit meal
- 2 parts chick rearing meal
- 1 part dried flies
- 1 part ants' eggs
- 1 part medium meat meal.

THE GENUS SPOROPHILA

By A. MORRISON

(Continued from page 51)

FIRE-RED FINCH (*S. minuta*)

Male.—Above brown with a slight wash of ashy olive ; lower back and rump chestnut ; lores dusky brown ; ear coverts light olive brown ; cheeks and entire under surface chestnut ; a small spot of white at the base of the cheeks ; thighs brown washed with chestnut ; under tail coverts chestnut ; lesser wing-coverts brown ; median and greater coverts blackish with broad greyish olive edges to the latter ; other wing feathers blackish brown edged with ashy, whitish on the margins of the primaries, the inner ones of which have a half-concealed spot of white at the base ; under wing-coverts whitish ; upper tail coverts ashy olive washed with chestnut on the edges ; irides brown ; bill blackish (or sometimes brownish white), paler below ; feet dark horn.

The brownish bill phase is possibly in seasonal plumage when the

feathers are generally browner with the edges to wing and tail feathers much broader and deeper brown in colour.

Juvenile Male.—Similar to the female but more olive above with traces of cinnamon on the rump and under surface. Also it presumably possesses the white wing spot of the adult male.

Female.—Above pale olive to yellowish olive, lighter on the rump ; under surface lighter and yellower ; wings and tail blackish brown edged with olive ; bill brownish, pale below.

Plate.—*Bird Notes*, vol. vi, p. 60 (male).

Habitat.—From Panama through Columbia and Venezuela to Guiana and N.E. Brazil ; Trinidad and Tobago.

References.—Russ, 570. Neunzig, 240. Butler, 145. *Bird Notes*, vol. vi, p. 62.

The Fire-red Finch was first imported in 1906 when quite a number came into the country. It has a pretty little song and appears to be a most desirable species in every way and it is unfortunate that it should be so rare.

LAVENDER-BACKED FINCH (*S. castaneiventris*)

Male.—Upper surface and sides of head blue grey ; a small white patch at base of bill ; whole under surface deep chestnut brown ; sides and thighs blue grey ; lesser wing coverts blue grey ; rest of wing feathers black with blue grey edges ; those of the greater coverts and inner secondaries with grey tips as well ; the bases of the inner primaries form a white, but usually concealed, wing patch ; axillaries and under wing coverts white becoming grey towards the edge ; tail feathers blackish margined with grey ; irides dark brown ; bill and feet brown.

Juvenile Male.—Undescribed.

Female.—Above olive brown, pale on the rump and under surface ; sides of head and foreneck paler olive brown ; sides of body darker ; breast, centre of belly, under tail coverts and thighs pale ochreous buff ; lesser wing-coverts like the upper surface ; rest of wing and tail feathers dark brown with pale brownish edges ; feet brown ; bill yellowish brown.

Plate.—*Bird Notes*, vol. vi, p. 61 (male).

Habitat.—Guiana, Columbia, Peru, and Amazonia.

References.—Neunzig, 240. Butler, 145. *Bird Notes*, vol. vi, p. 62.

This is by far the prettiest *Sporophila* that I have seen and it is in every way a most delightful little bird. It was first imported privately in 1906 but this year a good many have been imported. The price is fairly high, but even so the bird is well worth it. It is a hardy bird and in disposition resembles the Reddish Finch. It is said to be a pretty songster, but as I have only possessed a hen, I cannot vouch for the accuracy of the statement

NATTERERS FINCH (*S. pileata*)

Male.—Above. pale brown mottled with blackish, rump tawny brown; crown, nape, and lores black; under parts pale reddish, darker on the sides and flanks; centre of abdomen white; wing feathers blackish edged with pale brown; inner primaries white at base of outer webs forming a white patch; tail feathers dark brown with paler edges and whitish tips; legs and feet greyish brown; bill black.

Juvenile Male and Female.—I can find no description.

Plate.—*Ibis*, 1871, plate 1 (male).

Habitat.—S.E. Brazil.

References.—*Ibis*, 1919, p. 83. Russ, 570

In the *Ibis* mentioned above Mr. Blaaw gives an interesting account of a male of this species which he bought in 1911 in Santos and brought home to Holland with him. It possesses an interesting eclipse plumage when the black cap and reddish under parts are replaced with plain buff colour, the bill becoming brown. It is a fine songster but appears to be excessively vicious with other birds.

In addition to the twenty-one species given already, Russ mentions the following though they are not known to have been imported:

Sporophila hypoxantha,

S. cinnamonea,

S. nigrorufa,

S. telasco,

S. bicolor.

BREEDING RESULTS AT THE KESTON
FOREIGN BIRD FARM DURING 1934

By E. J. BOOSEY

Breeding results here during the 1934 season have been quite up to standard, any disappointments among the Parrakeets being amply compensated for by the rearing of broods of the very rare Splendid Grass Parrakeet for the first time in Europe and the almost equally rare Yellow-fronted New Zealand ; detailed accounts of both these events having appeared in the November issue of the Magazine.

Perhaps it will be as well to start with the disappointments, chief among these being the Many-colours. These started with the rosiest prospects, so that their ultimate failure was all the more unexpected. Three pairs hatched what must surely be a record number of young ones for this species, namely seventeen ; but, though the parents had been given their nest-boxes at the same time as last year, when we did very well with them, this season the nights elected to be abominably cold just when the young ones were hatching and, the cold weather continuing for some time, all but three of the young ones died.

The survivors were three of a brood of five hatched by an imported hen and a cock which we have had ever since the farm was started, and which we know to have lived in aviaries for nineteen years, though, being wild-caught, his full age is uncertain. His original wife died last year of old age.

The old pair of Barrabands reared four young ones, but a second pair hatched six, only to let them die at various ages, the last to succumb being quite well feathered.

Fifteen young Stanleys were reared. A pair of Yellow-rumps produced the amazingly large clutch of ten fertile eggs, but the hen deserted after sitting for a fortnight, possibly from sheer terror at the thought of having to rear ten children all at once !

A pair of Rosellas reared nine young ones, but the Golden-mantles, a supposed young pair, turned out to be two cocks, though one of them has, compared with the other, a definitely small and feminine-looking head, and in juvenile plumage looked an undoubted hen.

Fortunately, Lord Tavistock's pair reared a brood of six, of which we obtained two young ones.

The star turn of the season was undoubtedly twenty-one young Bourke's reared from four pairs, and it is interesting that nineteen of these were produced by three of the pairs, these consisting of two adult imported cocks and one young one we bred last year, mated in each case to a young hen about twelve months old, also reared here last season.

As against this, an imported pair we have had for several years reared only two. The same also applies to Blue-wings, of which fifteen were reared. That is to say, two of the hens were our own last year's breeding, and the third imported. The largest and finest brood was produced by one of these young aviary-bred hens.

By this we don't seek to prove that aviary-bred Parrakeets always breed *better* than imported specimens, which would be absurd; but merely that, provided they come from carefully bred stock that has not been allowed to degenerate, they do breed every bit as well.

No Elegants or Turquoisines were reared, the eggs in the case of the former being infertile, while one pair of Turquoisines had fertile eggs which the hen deserted, a second pair had infertile eggs, while a third hen failed to lay at all. The chief difficulty in breeding Turquoisines is that pairs are very inclined to squabble in the breeding season, and one gathers from watching them that this is chiefly due to the cock's fussy inquisitiveness. No sooner has the hen disappeared into the nest-box, obviously hoping to be left in peace, for a while, than the cock either goes and pokes his head in the entrance hole, or else goes right inside, when a heated argument takes place, ending usually in the cock being unceremoniously bundled out again, while the hen, half in, half out of her nest-box, glares angrily at her tiresome husband. All this is not particularly conducive to marital peace, or the successful hatching of eggs.

Splendids, to a certain extent, share this trait, being distinctly inquisitive; while Elegants, Bourke's, and Blue-wings, curiously enough, are quite the opposite, being usually great respecters of their wives' privacy.

One of the most interesting and satisfactory events was the breeding of Hooded Parrakeets *at the right time of year*. This lovely and shapely little bird has scarcely ever been bred, though this is not because they are difficult to rear or unwilling to go to nest. The reason is their almost invariable refusal to adapt themselves to our seasons. They usually spend the proper breeding season moulting hard and, although all their neighbours are busy rearing families, Hooded refuse so much as even to examine a nest-box. Then, at last, about October, as soon as they begin to feel an autumnal nip in the air, they decide that the ideal time to start thinking about raising a family has arrived.

To allow them to breed at such a time is, of course, quite hopeless, the few young ones that have been reared in heated shelters proving, even if they live long enough to leave the nest, so weakly and rickety as to be hardly worth the trouble of rearing.

The hen that bred this year was mated in spring, 1933, to a cock Red-rump, who, to her outraged astonishment, suggested that she should lay in April. To this fantastic proposal she opposed a curt negative but, in doing so, failed to take into account the reactions of a cock Red-rump who considers his wife is attempting to thwart him. He, too, was amazed and indignant, so much so that he literally drove his wretched wife (who was just looking forward to a nice quiet moult) into the nest-box, and kept her there until she promised to set about immediately preparing it for the reception of eggs.

This, with extreme reluctance she did, the result being a brood of four hybrids, all successfully reared.

This spring a Hooded husband was provided for her and, as they went to nest in April, one can only suppose that she must have told her husband about her successful experiment of the previous year. For some reason, possibly because she must by now be getting pretty old, she only laid two eggs, but these were both hatched and reared into two very fine young cocks.

A short description of the aforementioned hybrids—a cross which has, we believe, never been obtained before—might be of interest, as the birds are now fully adult. The hen takes after her father, and is not unlike a paler and slimmer edition of an ordinary hen Red-rump. The three cocks have slightly bluish emerald-green breasts, dark-grey

backs, with a faint suggestion of grey where the hood should be, a good deal of dark blue on the lower part of the wing, with a pale bronze-green rump, the tail shading into blue-black at the tip. In the case of two of these cocks the wing is adorned with a fair-sized red patch on each shoulder, this area being orange in the remaining one.

Four young Ring-necks, and several young Cockatiels were reared, as also numerous Lovebirds of the various species. Incidentally, two very fine broods of five and four respectively of Nyasa and Masked Lovebirds were fledged about 14th November, their nest-boxes being hung in the open run with only slight overhead protection from the rain. Both pairs have young in the nest again as we write (4th January).

A pair of Swainson's Lorikeets go on breeding steadily the whole year round, invariably laying two eggs and hatching one; and the single young one remains in the nest for months. At the moment they have a half-grown youngster.

Pairs of Barnards, Mealy Rosellas, and Rock Peplars were obtained too late in the season for breeding, while the "hen" of a supposed pair of Crimson-wings, the cock of which we have had for some time, turned out to be a young cock, starting to show the black back and crimson wing patches early in June.

Last October we obtained a consignment of ten very young Plum-heads from India. They have now mostly completed a moult, though at least a further one will be necessary before the cocks assume their red head colouring. At present it looks distressingly as though we are going to have seven cocks and only three hens; though the latter have always, for some unexplained reason, been so scarce that one would hardly have been surprised if the whole consignment had turned out to be cocks. It used to be considered that hens were hardly ever sent over owing to their duller colouring; but that this is not the case is proved by our experience with this consignment of nestlings.

The breeding results with the Finches and Diamond Doves were satisfactory, although there is nothing particularly spectacular to record.

Zebra Finches did well, and hundreds of young ones were reared, a white hen bred in 1933 mated to an ordinary cock rearing nineteen

ordinary young ones and one white one, which has turned out to be a cock.

Ruficaudas and Bichenos reared a number of young ones and Long-tailed Grass Finches did very well during the latter part of the season ; this being no doubt due to the fact that earlier on we found that we had got some of the sexes wrong, which unfortunately is only too easy to do with this otherwise delightful little finch. Every now and again one comes across a pair in which the cock's black bib is particularly large, and the hen's particularly small, and then, of course, the distinction is obvious. But in the vast majority of cocks and hens the difference in the size of their bibs is so infinitesimal as to be practically useless for sexing purposes.

One pair of Red-headed Parrot Finches did excellently, producing nine young ones in two nests. Another pair reared two and a third always deserted their eggs. Even so, however, it was satisfactory to have started the season with six and ended up with twenty-one (four under Bengalese). Most of these, of course, we are keeping, so that next year we should have a nice breeding stock of them. Once again it is interesting to note that the hen who did so well was one bred by us last year, and the one that deserted her eggs was an imported bird.

The Red-headed Parrot Finch is a delightful little bird, its chief characteristics being its tremendous energy and tit-like vivacity, so much so that unless one is careful they are a little inclined to knock their heads against the wire roof of their aviary. They are very willing indeed to go to nest, but even more willing to desert their eggs unless allowed real privacy. It has always seemed to us that the difficulty of sexing them has been considerably exaggerated. True, this is a difficult matter if one happens to have a rather bright hen and a rather dull cock, but, generally speaking, the cock's red mask is unmistakably brighter than his wife's ; also the cocks continually utter their little trilling song, while hens have no particular song.

Gouldians did badly, the fourteen or so young ones that were reared being very good ones, but quite a number of pairs failed to get beyond laying numerous eggs, mostly unfertile, before they had to have their nest-boxes removed for the winter. Of all finches, Gouldians are the

most mysterious and inexplicable in the way in which they will breed extremely well one year, very badly the next, and then probably well again, some pairs going to nest some years much earlier than others, and all, so far as one can tell, for no apparent reason at all.

A fair number of Parrot Finches', Gouldians', Ruficaudas', and Long-tailed Grass Finches' eggs were placed under Bengalese and successfully reared by them. A very interesting point here is that Parrot Finches and Ruficaudas, when they have broods of their own, consume large quantities of mealworms, whereas their young ones under Bengalese were naturally given nothing but seed and green food by their foster-parents, who will hardly ever eat mealworms. Yet there seems no difference in the size and brightness of colouring in the Parrot Finches and Ruficaudas reared on an insectivorous diet and those reared on a seed diet.

A fair-sized planted aviary, about 26 feet long by 15 feet wide by 8 feet high, containing Green Avadavats, most of the various Waxbills, Paradise Whydahs, Gouldians, Cuban Finches, White-throated Finches, Tambourine and Maiden Doves, etc., failed to yield any breeding results, though numerous nests were made and eggs laid. This, however, was scarcely surprising, as the aviary was only completed in April.

Even so, however, we are inclined to put a good deal of the blame on to the cock White-throated Finch. This little bird, an industrious though monotonous songster, is a perfect little devil in a mixed collection, usually killing anything at all closely related to him and contenting himself with chasing the other birds about and pulling their nests to pieces. Anyone thinking of keeping a member of the genus *Sporophila* would be well advised to start with the Lined Finch. Not only is he far handsomer than his White-throated cousin but, in our experience, not nearly so aggressive, and an infinitely finer songster.

About 3,000 Budgerigars of all colours were reared during the season.

DUCK HYBRIDS

By Dr. E. HOPKINSON

The number of *Anatidae* hybrids which have been bred in confinement is very large, and the possibilities in this line seem almost unlimited.

The following list of crosses of which I have records may be of sufficient interest to publish and perhaps produce additions, so that a really complete record may be obtained. The authorities for these records can be found in my *Records of Birds Bred in Captivity*, published by Witherby in 1926, and later ones in the *Field*, *AVICULTURAL MAGAZINE*, etc., and in the *Bulletin of the British Ornithologists' Club* for 1929 (vol. xlix), where (pp. 93-9) two large series of Duck-hybrid skins by Lord Rothschild and Mr. Kinnear are described. These were exhibited at the May meeting of the Club of that year. Lord Rothschild's consisted of "103 skins of hybrid Ducks of 49 distinct crosses and 2 reverse crosses", all but three of which had been bred in captivity—"artificially bred, mostly in Holland, but a few at Netherby Hall (Sir Richard Graham); Ditton Hall, Cambridgeshire (J. L. Bonhote); Lilford Hall (Lord Lilford); and the London Zoological Gardens." Mr. Kinnear's series contained about thirty skins, all but one bred in confinement, at the Zoo, St. James' Park, by Lord Lilford, Sir Edward Grey, Mr. Bonhote, and others. The last-named gave a full account of his experiments with five species of *Anas* in the *Proceedings* of the 4th International Ornithological Conference, 1905 (pp. 235-264).

In the list below (Roth.) and (Kinn.) refer to the exhibitions mentioned above, and when both parents are printed in CAPITALS the record (or records) I have are good; when only one parent is so printed I consider the record sufficient, while a (?) indicates the few in which there may be doubt as to whether the cross bred in captivity was fully reared.

List of DUCK Hybrids

- a. WHOOPER SWAN × Whistling Swan.
- b. " " × Trumpeter Swan.
- c. " " × Domestic Goose.

Whistling Swan with the male Whooper.

TRUMPETER × Common Swan.

And with the male Whooper.

a. COMMON SWAN × Domestic Goose.

b. „ „ × Bernacle = Canada Goose hybrid.

And with males of the Trumpeter and Black Swans.

a. BLACK SWAN × COMMON SWAN.

b. „ „ × Domestic Goose.

c. „ „ × CANADA GOOSE.

a. SPURWING GOOSE × Egyptian Goose.

b. „ „ × Upland Goose.

And with the male Egyptian Goose.

a. MUSCOVY DUCK × DOMESTIC DUCK.

b. „ „ × Shelduck.

„ „ × Egyptian Goose.

And with males of the Domestic Goose and Duck.

a. CAROLINA DUCK × Australian Wild Duck (*supercilliosa*).

b. „ „ × SPOTBILL DUCK.

c. „ „ × Gadwell.

d. „ „ × Pochard.

e. „ „ × White-eyed Pochard.

f. „ „ × Tufted Duck.

And with males of the Mandarin, Sheldrake, Wild Duck, Spotbill, Yellowbill, Gadwall, Wigeon, Chiloe Wigeon, Chilean Teal, Chilean Pintail, Bahama Duck, Rosybill, Pochard, and White-eyed Pochard.

a. MANDARIN DUCK × Carolina Duck, and with the male Wild Duck.

WHITE-WINGED WOOD DUCK (*Asarcornis scutulata*) × Domestic Duck.

COMB DUCK (*Sarkidiounis melanonota*) with the male Rosybill Duck.

a. ORINOCO GOOSE × Egyptian Goose.

Snow Geese

a. BLUE-WINGED SNOW GOOSE × LESSER SNOW GOOSE.

b. „ „ × GREATER SNOW GOOSE.

c. „ „ × Bean Goose.

d. Snow Goose (*ivalis* or *hyperboreus* or both) × DOMESTIC GOOSE.

And with males of the Domestic, Chinese, and Emperor Geese.

- a. DOMESTIC GOOSE × SNOW GOOSE.
- b. „ „ × Muscovy Duck.
- c. „ „ × CHINESE GOOSE.
- d. „ „ × Egyptian Goose.

And with males of the Black Swan, Blue-winged Snow Goose, Bean Goose, Chinese Goose, and Canada Goose.

WHITE-FRONTED GOOSE *with males of the* Bean and Bernacle Geese.

- a. LESSER WHITE-FRONTED GOOSE × Bernacle Goose (?) *and vice versa*.
- a. BEAN GOOSE × Wild Goose (*ferus*).
- b. „ „ × White-fronted Goose.

And with the male Blue-winged Snow Goose.

- a. BAR-HEADED GOOSE × Shelduck.

And with the male Australian Shelduck (?) and Chinese Goose.

- a. CHINESE GOOSE × BLUE-WINGED SNOW GOOSE.
- b. „ „ × DOMESTIC GOOSE.
- c. „ „ × Bar-headed Goose.
- d. „ „ × CANADA GOOSE.
- e. „ „ × Egyptian Goose.

And with males of the Domestic, Bernacle, Sandwich Islands, and Spurwing Geese.

- a. EMPEROR GOOSE × SNOW GOOSE (Ross or Blue).
- a. CANADA GOOSE × Domestic Goose.

And with males of the Chinese Goose and Black Swan.

HUTCHINS'S GOOSE *with the male* Bernacle.

- a. BERNACLE GOOSE × White-fronted Goose.
- b. „ „ × Lesser White-fronted Goose.
- c. „ „ × Hutchins's Goose.
- d. „ „ × Chinese Goose.

SANDWICH ISLAND GOOSE × Chinese Goose.

- a. UPLAND GOOSE × RUDDY-HEADED GOOSE.
- b. „ „ × Egyptian Goose.

And with males of the Ruddy-headed, Black-banded Upland, and Spurwing Geese.

- a. BLACK-BANDED UPLAND GOOSE × Upland Goose.
- RUDDY-HEADED GOOSE × UPLAND GOOSE *and vice versa*.
- a. MANED GOOSE × Egyptian Goose (?)

- a. EGYPTIAN GOOSE × Spurwinged Goose.
- b. „ „ × Chinese Goose.
- c. „ „ × Shelduck.
- d. „ „ × Wild Duck.

And with males of the Orinoco Goose, Spurwing, Domestic Chinese, Maned, and Upland Geese, Domestic and Muscovy Ducks, Sheldrake and Ruddy and Grey-headed Sheldrakes.

- a. SHELDRAKE × GREY-HEADED SHELDUCK.
- „ „ × Ruddy Shelduck.
- b. „ „ × WILD DUCK.
- c. „ „ × Egyptian Goose.
- d. „ „ × CAROLINA DUCK.

And with males of the Muscovy Duck, Bar-headed Goose, and Egyptian Goose.

- a. RUDDY SHELDRAKE × EGYPTIAN GOOSE.
- b. „ „ × Common Shelduck.
- c. „ „ × Grey-headed Shelduck.
- d. And this hybrid × New Zealand Shelduck.
- e. „ „ × Australian Shelduck.
- f. „ „ × Falcated Duck.

And with males of the Common, Rajah, and Grey-headed Sheldrakes.

- a. GREY-HEADED SHELDRAKE (*cana*) × Ruddy Shelduck.

And with the male Common Sheldrake.

- a. NEW ZEALAND SHELDRAKE (*variegata*) × Ruddy Shelduck, *and vice versa*.

- a. AUSTRALIAN SHELDRAKE (*tadornoides*) × Bar-headed Goose (?), Wild duck or Mallard (Domestic Duck *included*).

- a. MALLARD × MUSCOVY DUCK. (*Roth., Kinn.*)
- b. „ „ × Carolina Duck. (*Roth.*)
- c. „ „ × Mandarin Duck.
- d. „ „ × MELLER'S DUCK.
- e. „ „ × DUSKY DUCK (*rubripes late obscurus*). (*Kinn.*)
- f. „ „ × AUSTRALIAN WILD DUCK.
- g. „ „ × YELLOW-BILLED DUCK.

And this hybrid × Wigeon.

h. MALLARD \times SPOTBILL DUCK.*And further crosses :*r. MALLARD-SPOTBILL hybrid \times MELLER'S.s. " " " \times AUSTRALIAN WILD DUCK \times
MELLER hybrid.t. " " " \times AUSTRALIAN WILD PINTAIL.u. " " " \times PINTAIL \times WILD DUCK.*And further crosses up to*MALLARD-SPOTBILL-PINTAIL *trigen* to 3rd generation.M \times S \times P \times AUSTRALIAN WILD DUCK *tetragen*.M \times S \times P \times Australian Wild Duck \times Mellers *pentagen*.*See Bonhote's paper.*1. MALLARD \times Gadwall.This hybrid \times Gadwall. (*Kinn.*)j. " \times Wigeon.k. " \times American Wigeon (?).l. " \times TEAL. (*Roth.*)m. " \times PINTAIL. (*Roth., Kinn.*) " \times CHILIAN PINTAIL (*Roth.*)n. " \times Shoveler.o. " \times Red-crested Pochard.p. " \times Egyptian Goose. " \times Rosybill. (*Roth.*) " \times Bahama Duck. (*Kinn.*)*And with males of the Dusky Duck, Australian Wild Duck, Yellowbill, Gadwall, Wigeon, Teal, Pintail, Rosybill, Pochard, Egyptian Goose, Shelduck, Asarcornis, and Muscovy.*a. DUSKY DUCK \times WILD DUCK.b. " " \times This hybrid.c. " " \times Yellowbill Duck.*And with the male Mallard and Yellowbill.*a. AUSTRALIAN WILD DUCK \times MELLER'S DUCK.b. " " \times Wild Duck. (*Kinn.*)c. " " \times Rosybill.d. " " \times PINTAIL.

And this hybrid × MELLER'S DUCK.

„ „ × Chilian Pintail. (*Kinn.*)

And with males of the Mallard, Luzon Duck, Pintail, Chilian Pintail, Carolina Duck, and Red-crested Pochard.

a. MELLER'S DUCK × WILD DUCK.

And with males of the Mallard, Australian Wild Duck, Yellowbill, and Pintail.

a. LUZON DUCK × Australian Wild Duck.

a. YELLOW-BILLED DUCK × Wild Duck.

b. „ „ × DUSKY DUCK.

c. „ „ × MELLER'S DUCK.

d. „ „ × SPOTBILL.

e. „ „ × Carolina.

And with the male Mallard and Dusky Duck.

SPOT-BILLED DUCK × Carolina Duck. (*Roth.*)

And with the male Mallard, Yellowbill, and Carolina.

a. FALCATED DUCK × GADWALL.

b. „ „ × Wigeon.

c. „ „ × Chiloe Wigeon.

d. „ „ × Australian Teal (*castanea*).

e. „ „ × Shoveler.

And with males of the Ruddy Sheldrake and Australian Teal.

a. GADWALL × Carolina. (*Roth.*)

b. „ „ × WILD DUCK. (*Kinn.*)

c. „ „ × Meller × Pochard *hybrid*.

d. „ „ × Pintail. (*Kinn.*)

And with males of the Mallard, Falcated Duck, and Wigeon.

a. WIGEON × AMERICAN WIGEON.

„ „ × CHILOE WIGEON. (*Roth.*)

b. „ „ × GADWALL.

„ „ × Carolina. (*Roth.*)

c. „ „ × WILD DUCK. (*Kinn.*)

d. „ „ × PINTAIL.

e. „ „ × Common Teal.

„ „ × Australian Teal. (*Roth.*)

f. „ „ × Baikal Teal.

WIGEON × Tufted Duck. (*Roth.*)

„ × Red-crested Pochard. (*Kinn.*)

And the female Wigeon with males of the Mallard, Falcated Duck, American and Chiloe Wigeons, Baikal Teal, and Pintail and Chilian Pintail.

a. AMERICAN WIGEON × WIGEON.

„ „ × Wigeon-Wild Duck hybrid. (*Kinn.*)

„ „ × Bahama Duck. (*Roth., Kinn.*)

And with males of the Mallard, Wigeon, and Bahama Duck.

a. CHILOE WIGEON × CHILIAN PINTAIL.

b. „ „ × WIGEON.

c. „ „ × Carolina Duck.

„ „ × Bahama Duck. (*Roth.*)

And with males of the Wigeon, Pintail, and Falcated Duck.

a. BAIKAL TEAL × Wigeon.

And with males of the Common and Versicolor Teal, and Wigeon.

a. COMMON TEAL × Wild Duck (?).

„ „ × Baikal Teal.

And with males of the Chilian Teal, Garganey, Wigeon, and Wild Duck.

a. AUSTRALIAN TEAL × Chilian Teal.

And with males of the Grey and Brazilian Teals, the Wigeon, Bahama Duck, and Falcated Duck.

a. GREY TEAL (*gibberifrons*) × Australian Teal.

a. CHILIAN TEAL (*flavirostre*) × Common Teal.

b. „ „ × Carolina Duck.

And with males of the Australian Teal and Bahama Duck.

a. BRAZILIAN TEAL × Australian Teal.

And with the male Bahama Duck.

a. PINTAIL × WILD DUCK.

b. „ × the above hybrid.

„ × Chilian Pintail. (*Roth.*)

c. „ × MELLER'S DUCK.

d. „ × AUSTRALIAN WILD DUCK.

e. „ × WIGEON. (*Kinn.*)

„ × Chiloe Wigeon. (*Roth.*)

f. PINTAIL × Common Teal.

g. „ × Garganey.

„ × White-eyed Pochard. (*Roth.*)

And with males of the Chilean Pintail, Wigeon, Gadwall, Wild Duck, and Australian Wild Duck.

a. CHILIAN PINTAIL × Pintail.

b. „ „ × BAHAMA DUCK. (*Roth., Kinn.*)

c. „ „ × Australian Wild Duck.

„ „ × Gadwall. (*Roth.*)

„ „ × Wigeon. (*Roth.*)

„ „ × Chilean Teal.

„ „ × Carolina Duck. (*Kinn.*)

And with males of the Wild Duck, Australian Wild Duck, Chiloe Wigeon, and Pintail.

a. BAHAMA DUCK × AMERICAN WIGEON.

„ „ × Carolina Duck. (*Roth.*)

b. „ „ × BRAZILIAN TEAL. (*Kinn.*)

c. „ „ × Chilean Teal.

„ „ × Australian Teal. (*Roth.*)

And with males of the Wild Duck, American Wigeon, Chiloe Wigeon, and Chilean Pintail.

a. VERSICOLOR TEAL × Baikal Teal.

a. GARGANEY × Common Teal.

b. „ × Shoveler.

And with the male Pintail.

a. AMERICAN BLUE-WINGED TEAL × CINNAMON TEAL, *and vice versa.*

a. CINNAMON TEAL × AMERICAN BLUE-WINGED TEAL *and vice versa.*

a. MARBLED DUCK × White-eyed Pochard (*Roth.*) *and vice versa.*

SHOVELER *with males of the* Mallard, Falcated Duck, and Garganey.

a. RED-CRESTED POCHARD × Rosybill.

„ „ × Pochard. (*Roth.*)

„ „ × White-eyed Pochard.

„ „ × Australian Wild Duck.

And with males of the Wild Duck, Wigeon, Pochard, and Rosybill.

a. ROSYBILL DUCK × Wild Duck.

b. „ „ × RED-CRESTED POCHARD. (*Roth., Kinn.*)

ROSYBILL DUCK \times POCHARD. (*Roth, Kinn.*)

- c. " " \times Tufted Duck. (*Roth.*)
 " " \times Carolina. (*Roth.*)
 " " \times Comb Duck (*Sarkidiornis*). (*Roth.*)

And with males of the Wild Duck, Australian Wild Duck, Red-crested and White-eyed Pochards.

- a. POCHARD \times Wild Duck.
 b. " \times Red-crested Pochard.
 c. " \times White-eyed Pochard.
 d. " \times Scaup (?).
 " \times Lesser Scaup. (*Roth.*)
 e. " \times Tufted Duck.
 f. " \times Carolina Duck.

And with males of the Red-crested Pochard, Rosybill, and Tufted Duck.

AMERICAN POCHARD *with males of the Lesser and Ring-necked Scaups.*

- a. WHITE-EYED POCHARD \times Carolina.
 b. " " \times Rosybill.
 c. " " \times Marbled Duck.
 d. " " \times TUFTED DUCK.

And with males of the Pintail, Marbled Duck, Pochard, Red-crested Pochard, Scaup, and Tufted Duck.

- a. COMMON SCAUP \times LESSER SCAUP.
 b. " " \times White-eyed Pochard (?).
 " " \times Canvasback Duck.

And with the male Pochard.

- a. LESSER SCAUP \times American Pochard (?), *and vice versa.*
 a. RING-NECKED SCAUP \times American Pochard (?).
 a. TUFTED DUCK \times POCHARD. (*Kinn.*)
 b. " " \times WHITE-EYED POCHARD.
 c. " " \times the above hybrid.

And with males of the White-eyed Pochard, Rosybill, Wigeon, and Carolina Duck.

CANVASBACK DUCK *with the male Common Scaup.*

THE REARING OF A RED-AND-YELLOW MACAW AT LILFORD

By A. F. MOODY

Particulars of our nesting Macaws (*Ara chloroptera*) at liberty have already appeared in this Magazine,¹ but I hope that a few supplementary notes referring to a young bird which was reared here this autumn may be of interest.

Although the parents had been engaged at the nest from May onwards no certain knowledge was possessed that young had been hatched; it came as a pleasant though not unlooked-for surprise, therefore, when, on the evening of 27th September, four Red Macaws were seen flying instead of the usual three. When first seen, on what was probably its first flight, this youngster was quite a quarter of a mile from home, the parents vainly endeavouring to entice it back to the nest. This was only accomplished by easy stages the next day, the young bird, meanwhile, roosting for the first night in a roadside tree.

For the next few days it sat about in the vicinity of the nest, the parents visiting it at intervals and supplying food from the crop. This method of feeding was continued for some weeks, 18th November being the first date on which the young bird was seen partaking from the food pans.

Viewed casually on its first appearance, the youngster was hardly distinguishable from the parents, being equally brilliant in colouring; but on a closer examination it was seen to be more slenderly built, with a shorter tail and less massive bill, the dark part of the under mandible being more grey—a description which tallies with that of the young bird which left the nest on 19th December of last year.

It is quite impossible to give the period of incubation or the date when the young were hatched. All the data available is that the female disappeared within the hollow tree about 30th May and remained there, more or less continuously (she was fed by the male), until a week or two before the young bird appeared.

At the time of writing, 30th December, our youngster is very like the adults in appearance and behaviour, but it is still noticeably more slender, and has a rather different facial expression and a darker eye.

¹ April, 1934, p. 103.

CORRESPONDENCE, NOTES, ETC.

THE CRYSTAL PALACE SHOW

In some respects this year's show of foreign birds was less interesting than that of last year, for although there were some outstanding exhibits, it seemed to us that the variety of species was more restricted in one or two classes. Nevertheless, it can only be said that such a show is a supremely good one.

As last year, the star turn was provided by a Humming-Bird, Mr. Ezra's lovely Waterton's Wood-Nymph, a species still rare in museum collections and in Gould's day known only from the type specimen. A Short-tailed Ant-thrush was perhaps the most interesting bird we saw, while a female Hartlaub's Spotted Waxbill, of the Southern race which ranges from Natal to Mombasa, and therefore the first to be imported, afforded undoubtedly a great surprise. Mrs. Pearce's handsome Abeille's Grosbeak, although a fine bird, is perhaps less striking than the more northern Evening Grosbeak; several examples have lately been imported from Canada, none of which were shown. We noticed a fine specimen of Rothschild's Grackle and the Paradise Birds were well represented, in particular by the Lesser Superb and more than one Wilson's. There were two Cocks-of-the-Rock, we venture to think a somewhat overrated bird in captivity, for the curious habits it indulges in in its native fastness are by no means apparent in confinement, while its shape can scarcely be called elegant. Among the Tanagers we were delighted to see the rare *Calliste Boliviana* for the first time, and the less uncommon, though more beautiful, *Calliste vieilloti*, also shown last year, likewise Mr. Maxwell's old black and red *Phlogothraupis sanguinolenta*. There were more than one pair of Purple Sugar-Birds and of the Sun-Birds the rarest were the Senegal Scarlet-chested and Mombasa Collared, both in fine condition. The Kenya Malachite was slightly disfigured by some white wing-feathers. Among the Parrots Mr. Maxwell's pair of Banksian Cockatoos took a well-deserved prize, and Mr. Ezra's Princess of Wales Parrakeets were very lovely. In conclusion we have only space to mention a wonderful pair of Eclectus Parrots and an equally beautiful Green-winged Shining Parrakeet, as well as a pair of New-Hebridean Kingfishers in perfect condition.

A. C.

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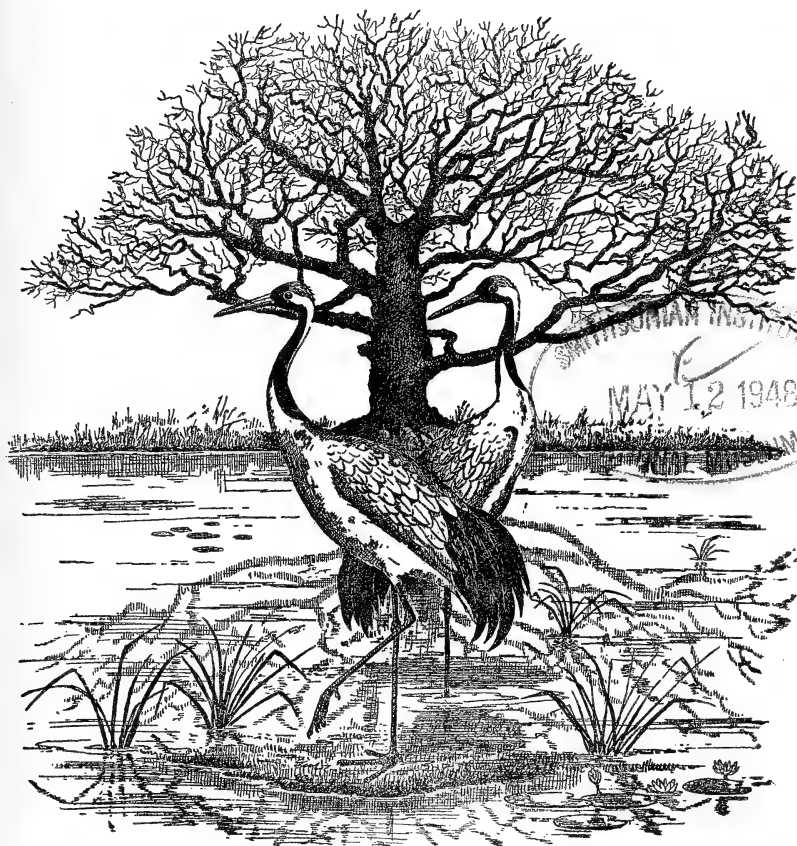
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CONTENTS

PAGE	PAGE
The North Island Robin (<i>Miro australis longipes</i>) (with plate) . . . 89	Notes from South Devon, by WINSTON S. ROWE . . . 112
Notes on the Birds of Fiji, by SYDNEY PORTER . . . 90	Where Rolls the Rio Grande, by JAMES B. HOUSDEN . . . 114
Breeding Results from Foxwarren Park, 1934, by ALFRED EZRA, O.B.E. . . . 105	Supplement to the Genus <i>Sporophila</i> , by A. MORRISON . . . 116
An Easily Constructed Outdoor Aviary, by FRANK W. HANSELL . . . 108	Correspondence, Notes, etc. . . 117
	Obituary 118

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NORTH ISLAND ROBIN.

Frontispiece.]

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APRIL, 1935

THE NORTH ISLAND ROBIN

(*Miro australis longipes*, Lesson)

As this species is now very rare and photographs of it equally so, we thought it worth while publishing a plate which may be considered to accompany the article on the species in Mr. Sydney Porter's "Notes on New Zealand Birds", published in the Magazine for December, 1933. Although this subspecies has never been imported, the South Island Robin (*M. a. australis*) is included in the Zoo list. The male has the head, neck, and upper surface dark slate grey, plumbeous beneath, the shafts greyish white, forming lines on the crown and nape; frontal spot pure white; throat, fore-neck, and sides of the body paler slate grey; lower breast, vent, under tail-coverts, and abdomen white, blending on the flanks with the other parts; wings dull brown with paler shafts; tail dull brown, shafts pale brown. Irides dark; bill blackish; tarsi pale brown. The total length is 6 inches.

The female is smaller and duller, with the under parts paler.

A. C.

NOTES ON BIRDS OF FIJI

By SYDNEY PORTER

“Green Islands in Glittering Seas” is a fitting name for those wondrous paradises of the Southern Pacific. It is among these enchanted islands that one finds the South Sea Islands of the story books, islands of emerald green, of swaying palms by surf-ringed shores, of the scarlet hibiscus, of wonderful multi-coloured coral reefs, of breezes laden with the heavy exotic perfume of a thousand tropical blossoms, of gleaming white coral beaches lapped by crystal waters whose touch to the body feels like liquid velvet.

We perhaps see pictures of the South Sea Islands at the cinema, or in a story book, or often a pen-picture is drawn of a tropical island paradise in a cheap novel, where two lovers, after chasing each other round the world, at last find their haven of refuge! Beautiful as these representations may be, they cannot adequately portray the original, for how can they capture the radiant sunlight which drenches these happy islands or bring to the nostrils the exquisite scent of the gorgeous tropical flowers or above all convey to the mind that languid restful peace which makes one feel that at last one has found the land of one’s dreams?

There, the Englishman never speaks of the wretched climate as he does in most colonies, or bemoans his fate as an exile from his native land. He speaks of these emerald islands as one speaks of a lover, tenderly, respectfully, and always in the hopes that there will never be a parting.

It was to Fiji that I went in search of the wonderful Parrakeets for which those islands are so famed. These birds are amongst the largest and most brilliant of their kind. I had specimens of the gorgeous “*Splendens*” at home and, fired by their great beauty, I resolved that at the first opportunity I would try to visit their native habitat. The chance came when I was in New Zealand, for the Fiji group of islands is only 1,200 miles from that country. I hoped to see something of all these splendid birds in a state of freedom, but alas, I was doomed to disappointment. My stay was too short and the Parrakeets were all too rare. When I was in New Zealand, I was

thrilled beyond measure to find that a specimen of the very rare "Personata" was being sent to Auckland for me. Alas, owing to lack of attention on the boat, the bird arrived dead. I felt heart-broken as I handled the beautiful body and thought of the wonderful might-have-been. As there seemed not the slightest chance of ever getting another of these extremely rare birds, I determined to go myself and try to secure another specimen if not a pair.

Preparations were made to have certain Parrakeets collected in Suva to await my arrival, but unfortunately we did not appreciate the local conditions. Upon arrival I found that four specimens of beautiful Kandavu bird, known in this country as the Red-shining Parrakeet, and which is the most plentiful of the six forms inhabiting the Fiji group, were waiting for my arrival. There were also two baby Kulas or Ruffed Lories. There were also three other Kandavu birds belonging to Indians which it was thought I might be able to buy, also an odd bird of the Taveuni form.

The birds mentioned had all been brought up from the nest, as the Fijians know nothing of catching any birds. The only way they ever obtain them is to mark down the tree where the nest is and eventually take the young which are hand-reared. After some days in Suva I heard of a specimen of the very rare form from the island of Ngau. It belonged to an Indian and, needless to say, I soon took a taxi and arrived at the very filthy abode of the vendor. It was a splendid specimen, a hen, and was confined in a miserably inadequate cage, in the bottom of which were a quantity of stale crusts, its sole food. With little bargaining the treasure was secured and I bore it away in triumph.

At first sight Fiji is like New Zealand, rather a disappointing place to visit for the ornithologist, in spite of its luxuriant tropical forest. Viti Levu, the largest of the Fijian Islands and once the home of some of the most brilliant feathered creatures, is being sadly denuded of its extraordinary bird life. On every hand one hears of depredations of the imported mongoose which has overrun both Viti Levu and Vanua Levu, where it has played havoc with all bird life.

Originally imported to combat the rat menace in the sugar-cane fields, it soon turned its attention to easier prey. In the smaller

islands, such as Kandavu, Taveuni, Ngau, and Koro, there are still quite a large number of birds left and especially on the Lau Archipelago ; all these places are quite free from the mongoose and the whites who kill for killing's sake. On none of the islands are the wonderful Parrakeets common. By reports from various government surveyors to whom I spoke, I learnt that the Masked Parrakeet is not extinct as it is supposed to be, and that a few still linger in the dense forests on the mountain ranges in the centre of the island of Viti Levu. In the old days before the mongoose had thinned its ranks, this bird was reckoned a pest owing to its eating the sweet corn and various tropical fruits and was killed in large numbers by the fruit planters. I tried to get those in authority to try and capture a few and release them on some of the smaller uninhabited islands which were free from the mongoose, and I think that this may be done.

The distribution of the Fijian Parrakeets is very strange and is something like that of the large West Indian Parrots. Each of the five larger islands has its distinct species.

There is no hope that these beautiful Parrakeets will ever grace our aviaries again, for strict protective laws have been recently passed and the capture or keeping of any species is forbidden. My birds were procured from Indians who had the birds before the protective laws were passed ; these they had originally purchased from the Fijians who had hand-reared them and brought them from the other islands for sale. Once there was quite a trade with the Parrakeets from the different islands, the birds being brought over by the natives in canoes and sold on the quay. Now all this is forbidden.

I had rather a difficulty in getting the Government of Fiji to allow me to export any of these Parrakeets, but eventually I got permission to take the birds away with me and I persuaded them to allow me to receive a pair of the Masked Parrakeets should at any future time a pair be secured, but of this I am not very hopeful.

There is no danger now that any of these birds will become extinct except the "Masked", for unlike most parts of the world to-day there is no active destruction of bird life by either the natives or the whites. The forest will never be felled as in New Zealand, for the

mountains are far too steep for cultivation and the general vegetation is too wet to burn.

None of the Indians who possessed Parrakeets seemed anxious to part with them, even though they were kept under very bad conditions, and there was a general "take it or leave it" attitude, and often if one attempted to argue about the price they would refuse to sell it at all. Often we heard of birds belonging to Indians. The actual deal had nearly always to be done by proxy, and we always offered to take the birds at the price mentioned or even higher, but when it came to the question of delivery very few of the birds ever materialized, though I knew the people had them. Very often they would say that the bird belonged to a child of two or three years old and it refused to sell it.

It may really have been that the Indians thought I was a government agent trying to find out who had the birds.

There was one old woman in the fruit market in Suva who had four lovely Red-shining Parrakeets. They were beauties and in perfect condition owing to, no doubt, being fed on fruit. We went day after day to see if she would sell, but no price would tempt her, so at last we told her that the only plan was for us to steal them, and with true Eastern philosophy she said, "Ah well, if you steal them I can't help it: it's the only way you will ever get them because I shall never sell them."

Nearly all the ground birds on Viti Levu and Vanua Levu have nearly been exterminated and a once common Megapode is now completely extinct. The imported Red-vent Bulbul and the Common Mynah are now superseding the ordinary native birds. In fact, about Suva, these are the only two birds to be seen.

The forests on the smaller islands have not been fully explored and I think that there are still many new species of birds to be found.

The wonderful Flame and Golden Doves are all too rare on most of the islands, though I met the King of Bau and he told me that the Flame Dove was still found on his island and he invited me to come over and procure some, but owing to lack of time I was unable to do this.

The Fijian Parrakeets seem to stand a far better chance of survival than most of the other Parrakeets of the world, providing that the bloodthirsty mongoose is kept from their islands.

Perhaps it is as well that we shall never see these lovely creatures in our aviaries again, for it is sad to think of these brilliant gems torn from their proper setting in those earthly paradises of sun-drenched coral strands and tall green waving palms, being imprisoned for life behind the bars of some inadequate parrot cage in a miserable northern climate where the sunshine of a whole year does not amount to that of one single month of their native islands. I for one shall be glad to think of these gorgeous birds' freedom, living out their own lives in those far distant isles of enchantment in the blue southern seas where one day perhaps when my ship comes in I may travel again, never to return.

THE MASKED PARRAKEET (*Pyrrhulopsis personata*)

As mentioned before, my chief object in visiting Viti Levu was to try to obtain examples of the supposed nearly extinct Parrakeet which is confined to that island. Various agents had been endeavouring to obtain specimens before I arrived on the island. Upon my arrival I realized that the quest was wellnigh hopeless.

I went on several trips into the interior in search of this bird, hoping that I might catch a fleeting glimpse of it in its native forest, but my luck was certainly out this time.

After a great deal of questioning and tracking down owners of Parrakeets I found that a gentleman in Suva had one. Would he sell it? Why, yes. The price? Oh, about eighteen shillings or a pound. I only just managed to control myself and say, "Yes thanks, I'll have it"! But like horses, there are Masked Parrakeets and Masked Parrakeets. This bird only just managed to be one at all. I was told that he was moulting, but I knew better. He was kept in a wooden cage similar to those in which Thrushes and Blackbirds are to be seen on the walls of country cottages in England. The top was of corrugated iron. That may not sound very dreadful, but when I mention that the temperature in the sun is often over 160° F. and that the cage *was* in the sun all day and that I couldn't bear my hand on the top, and that wretched bird was fed solely on hard maize and what appeared to be poultry meal, and that it had no bath or water of any sort with which to wet its plumage, its state may be imagined; especially when

I mention that the birds live in the damp forests where there is as much as 300 inches of rain in a year. When the feathers did appear on the birds they just withered and fell off.

(I was assured by the over-anxious manager of the tourist bureau in Suva that Fiji was not a tropical country because the equator did not run through it and that the daily temperature of 100° F. while I was there was nothing to that of tropical countries. I mentioned about coco-nut palms only growing in tropical countries, but was told that they grew anywhere ! !)

I am convinced that all the Parrakeets of the genus *Pyrrhulopsis* need a lot of moisture on their plumage when they moult, for in the forests where the birds live it rains almost continually.

The Parrakeet in its wretched prison had been almost half-baked by the terrible heat, but in spite of his condition I took him and I made his late owner promise to put him in an outdoor aviary where he could get the rain on his plumage during the time I was away in Kandavu, until the time I called to take him away with me.

When I came back from Kandavu Island the bird was still in its wretched prison. It was an old male and was almost as yellow on the back as on the breast. I thought at first that it was possibly a semi-lutino but I have since found out that if not given sufficient nourishing food when moulting the *Pyrrhulopsis* Parrakeets will grow yellow feathers which eventually wither and drop out. The bird had a very strong and goat-like odour, which I have never smelt with any bird before. I am sure this was due to the bird not being able to bathe and also not having the right food.

Before leaving Viti Levu, the person from whom I purchased the bird told me that he knew of another pair at Lautoka which were for sale. Owing to shortage of time I was unable to procure them but he said that he would use every effort to send them on to me later ; at all events I never heard any more about them and I rather doubt that he was telling the truth.

After a lot of trouble about a permit, for which I had to see the acting governor and answer a great many rather awkward questions, I got my treasure away on the boat.

To say that the journey from Fiji to New Zealand was a nightmare

is putting it mildly. I gave up a first-class passage on one of the large luxury liners, which ply between America and New Zealand, for a berth on a cargo boat belonging to the same line who advertise that they carry eight passengers on the "intermediate liners". By doing this it gave me more time in Fiji and I thought that I should have better accommodation for the birds and be able to look after them better. I was sadly disillusioned—the ship was literally a "floating slum" as far as accommodation was concerned. The captain ordered the birds (I had sixteen Parrakeets, two Lories, three Pigeons, and four Rails) to be put in the most exposed position on the deck. We struck a cyclone the first day out, which continued until we almost reached New Zealand.

I had a bad dose of malaria, and through tearing my leg on some rusty wire in Viti Levu had contracted blood poison. There was no one to look after the birds, so twice a day I had to crawl out of bed literally on my hands and knees, to look after them. It was almost impossible to get any water on the boat either to wash or give the birds. I was too ill to clean the birds out and the wind was so strong that it blew both the food and water out of the food pots in the cages. The captain refused to have the birds moved.

Fortunately, before leaving Suva I managed to get a supply of sweet corn or maize in the ear, and upon this the Parrots mainly lived. But alas! the journey was too much for the Masked; as we reached Auckland I could see that he was dying. Mr. Rowland Hutchinson was on the docks to meet me in, so was Dr. Hopkinson who was then visiting New Zealand, and we soon had the birds up in Mr. Hutchinson's bird rooms. Every attention was given to the Masked but he didn't last long. Had I known the beneficial effects of beaten-up egg, milk, and brandy I might have saved him.

Gradually all the splendid Kandavu Island Red-shinings went as well; we did everything possible for them, at least Mr. Hutchinson did, but all to no avail, one by one they dropped off until only three were left when I was ready to sail. I took these with me but they only lingered for three weeks. It was the same with all of them, lung trouble, pneumonia contracted on the ghastly voyage from Fiji. It was heart-breaking to think of all these splendid birds gone after I

had been to so much trouble and expense to procure them. I had one consolation—I still have my three splendid Ngau Island birds.

Some few years ago the American Expedition, already referred to, did great slaughter amongst the few remaining Masked Parrakeets, The Island of Viti Levu was simply combed out for them. Every bird seen was shot; on their own account twenty-six specimens are reported as taken, not counting the ones wounded or dropped into the dense vegetation which were never recovered. When science and commercialism combined are let loose on the Pacific Islands, heaven help the birds.

Several surveyors who were working in the interior said that they had at odd times seen an occasional bird but that they were exceedingly rare and very timid. So with the present restrictions, combined with the continued depredations of the mongoose, I think that we have seen the last of the Masked Parrakeet in this country. In fact I doubt if there is a single one in captivity in the world.

THE RED-SHINING PARRAKEET (*Pyrrhulopsis splendens*).

When in Fiji I was naturally anxious to see something of the splendid Red-shining Parrakeet, one of the largest and most gorgeous of living Parrakeets and the best known of the Fijian Parrakeets.

Like all the other *Pyrrhulopsis* Parrakeets, this species is, or was, confined to one island, namely Kandavu Island, but escaped birds I was told have now become established on Viti Levu, but I did not see any there. Kandavu is the third largest island in the Fiji group and is quite large as South Sea islands go.

The difficulty was how to get there as there was a complete lack of communication between Suva and Kandavu. There is no postal service, no telegraph in fact, only one white missionary resides there; so these facilities, should they be installed, would be quite wasted. The island is visited only by small native trading boats at intermittent periods.

After some inquiries on the part of the person who had been getting some of the Parrakeets for me, I was able to fix up to go on a small trading schooner which was going down to get hold of a cargo of bananas for shipment to an Australian port. The voyage from Suva

to Kandavu was more like a chapter from a tale of the South Seas of a century ago than anything belonging to the present day. The schooner, a vessel of about 80 tons, had been built—well, I never found out the date, but it must have been far back in the dim and distant past. It would never do to sail anything but an old derelict in those waters for owing to every island being encircled by coral reefs, the mortality amongst the ships is very high and I doubt if any company would ensure them, if indeed the natives have heard of insurance, except from the missionaries, who charge a pretty high premium for the insurance of their souls ! In a few years' time nearly all the boats come to the same end : they get their backs broken on some uncharted coral reef.

We (the dusky captain, the agents, myself, etc.) occupied what was ironically called " Stateroom No. O ", and what a stateroom it was ! It was also the pantry, general store, and incidentally the home of hundreds of huge cockroaches about three inches long and an inch wide across the back, which travelled at an incredible speed all over everything, ourselves included. Sometimes there was a general panic amongst them, or it may just have been an extra exuberance of spirit, for they would simultaneously all rush out of their hiding places and career all over the cabin. At night they were most active and fed upon our hair, eyebrows, and the skin on the soles of our feet ! When we retired to rest, or at least got into our bunks, one could see them poking their wicked looking heads over the sides and waving their long antennæ to see if one was asleep. No one seemed to mind these creatures very much and in time I got quite used to them.

The menu was not very varied, it consisted of stale bread, at least what the cockroaches left, tinned bully beef, and boiled green bananas. I chose the latter. On the way over the small auxiliary engine broke down, there was no wind, and we just drifted at the mercy of the currents. My heart sank into my shoes when the captain, a hefty Tongan Islander, told me that he had never been in these waters before and knew nothing about the positions of the reefs which abounded on every hand.

A wind sprang up at last and we decided to return to Suva to have the engine repaired ; so, apparently, vanished my hopes of seeing this

Parrakeet in its native haunts. However, half-way across the engines started up again, so back we went and our banana trading began in earnest.

That Kandavu is intensely picturesque goes without saying, also that it would satisfy the most ambitious imagination as to what a South Sea island should be like. About 32 miles long and varying from one to eight miles in width, it is composed entirely of steep razor backed mountain ranges covered for the main part with dense tropical forest, which has yet to be explored. There are limpid blue lagoons where the graceful green palms for ever look down at their own beautiful reflections mirrored in the calm waters beneath; there is a narrow strip of gleaming white coral strand and then the emerald green jungle, mysterious and fascinating to a degree.

The villages are all one expects, and are typical of the islands. On an area of close-cropped, vivid green grass, situated by the seashore and beneath a canopy of waving coco-nut palms with their ever trembling fronds and tall spreading native trees as often as not covered with a profusion of sweet scented blossoms, are a dozen or two picturesque and spacious native houses made of reeds and beautifully thatched. All around are set bushes of the scarlet hibiscus, sweet-scented lilies, and various flowering shrubs whose perfumed blossoms are used to decorate the enormous bushy heads of hair of the native belles, while the men, or at least some of the handsome village beaux, pencil round their eyes with charcoal and sometimes wear behind an ear a hibiscus blossom. Both the men and the women take an immense pride in their mops of frizzy hair and the combs they use have teeth about 8 inches long! The women mostly dye their hair red with some kind of earth.

The natives are a delightful crowd and one would little dream that their grandfathers were the most ferocious and bloodthirsty cannibals ever known. Their cannibalistic orgies make one sick to read about. Fortunately that is all past now and their descendants hardly seem to have a care in the world, except the trouble of finding the excessive Government tax. This is £2 2s. per annum, which to us over-taxed people seems small enough. But the native has no income and no money, neither does he know the value of it; half the sum for which the bananas are sold has to be paid by the trader to the

Government, and the other half to the missionaries. The price of bananas is about 2s. 6d. for 400, allowing for rejects, which means that the native has to grow something like 500 to 600 to get 400 perfect ones which the trader will take. So to pay the tax he has to produce something like 8,000 bananas each year. At all events he doesn't show his troubles to the outsider.

The currency is usually coco-nuts, thirty-six of which are needed to buy one box of matches from the insidious Chinese storekeeper. One can imagine the procession needed to carry the cash when the lady of the house does her Christmas shopping!

To row up one of the mangrove rivers is an experience not easily forgotten. It looks rather like an oak forest which has been flooded to a height of eight or nine feet. The mangroves arch over the river channel and form a wonderful green tunnel while the waters look dark, deep, and mysterious. One can often paddle miles up a river like this. Ever so often arms branch off from the main stream and if one follows them they lead to some delightful native village or banana plantation. The whole effect of these mangrove rivers is extremely weird and can never be adequately described.

Stopping at the first village, we heard the loud cries of these wonderful Parrakeets which reached us as we lay at anchor over half a mile from the shore. I found the bird quite abundant even around the native villages. It always betrays its whereabouts by the loud raucous cries. It was a great treat to see this splendid bird in a state of freedom. No bird I have ever seen looks more superb when in flight than this one. The brilliant scarlet, the intense blue, and the vivid glittering green show up to the best advantage when the bird is flying. It is not timid as Parrakeets go, which I suppose is owing to the bird being in no way persecuted by the natives.

Years ago the Kandavu people reared a great many birds from the nest and did quite a trade with them in Suva, where they took them for sale. The birds were mainly purchased by the Samoan residents and traders who plucked them of their scarlet feathers, which they used to decorate their mats and make into "lais". I met someone in Suva who quite recently had a female *Eclectus* stolen and killed by the Samoans so that they could obtain its scarlet feathers for their

mats. In an old book on Fiji published about the middle of the last century I came across the following : “ For nearly a hundred years past the Friendly Islanders have traded with Fiji. The scarlet feathers of a beautiful paroquet were the leading attraction, the birds abounded in one part of Taveuni [this would be *P. taviunensis*] where they were caught by nets and purchased by the Tongans, who traded with them in exchange for the fine mats of the Samoans. They paid the Fijians for the paroquets with small articles of European manufacture, bowls, and the loan of their women ” !

Fortunately, the sale of the Parrakeets has now been stopped, a measure which I heartily agree with, for if the wretched birds were not purchased by the Samoans to be periodically plucked, they were bought by Indians who kept them in terribly inadequate cages until they died of semi-starvation. True, a few are now smuggled into Suva but nothing like the numbers which came over a few years ago.

I never saw the birds in flocks, only in odd ones or pairs. They are not birds of the open country, but of the dense forests and the thick jungle bordering the native clearings. I never saw them low down but always on the tree-tops or in the higher branches.

Near the village of Talaulia we found the Parrakeets in the mango trees feeding upon the ripe fruit. They seemed to waste a terrible lot, for under the trees lay a large amount of half-eaten fruit, but no doubt the so-called “ flying foxes ”, or fruit bats, were also to blame.

Very often the brilliant colouring of tropical birds harmonizes with the foliage of the trees but not so with this one, the brilliant scarlet and blue are always most conspicuous when the birds are in the trees. I should imagine that the dark species such as *P. tabuensis*, etc., are even more easy of observation with their almost black under parts and even more brilliant blue.

All the time the birds fed in the trees they uttered their loud harsh cries. I don't suppose that the birds do much damage to the native crops which, as far as I could see, consisted of bananas which were always picked and eaten in a green state, usually baked over an open fire (no bird would ever eat a green banana), coco-nuts, and various root crops, such as yams, etc.

Fortunately I was able to obtain twelve of these gorgeous birds :

six came from a white person who had reared them from the nest, but they were in a terrible condition. The whole six had been kept in a by no means large packing case and fed solely upon dry maize. They were poor undersized specimens and the wonder was how they had managed to survive, especially as they had been kept in a semi-dark out-house. The other six, though obtained from various natives and Indians, were in almost perfect condition and one or two were very tame. I intended bringing two females home with me for the two cocks I already had in England and also an extra pair, making me six birds in all. The others I was leaving in New Zealand. Alas, I was doomed to disappointment, as related in the previous chapter on the Masked Parrakeet. Not only did I lose all my birds as a result of the unfortunate voyage from Fiji, but when I arrived home in England some months later I found that the two cock birds had also died through failure on the bird-man's part to give them the proper food; he had fed them solely on seed. At all events since then I have become possessed of seven more of these beautiful Parrakeets. I had no intention of keeping all the birds but I cannot dispose of any owing to the foolish restrictions of the Parrot ban, but perhaps I am not altogether sorry for they make a gorgeous spectacle in their aviary and are without a doubt the last which will leave Fiji officially. My friend said in his letter, "I have just received a very curt note from the Fijian Government stating that the one who sent me the Fijian Parrakeets will not be permitted to export any more Fijian birds. . . . They state, however, that the Fijian Government has decided that for the present no more permits to export any Fijian birds will be issued." As no birds now come over from Kandavu, and no tourists and very few white people go to that island, it looks as though we shall never see any more Red-shining Parrakeets in our aviaries.

Dr. Greene in his admirable book *Parrots in Captivity* has a chapter on this bird, but he evidently knew very little about it, neither had he kept it, which is very evident when he says, "It is by no means a delicate bird and when fairly acclimatized can stand any weather and almost any kind of treatment"! Neither did the famous Dr. Russ know much about it when he stated that "the birds do much damage to the maize crops and are consequently hateful to the farmers, who pursue

them without mercy". There are no maize crops, neither are there farmers on Kandavu. The Hon. F. C. Dutton, who had kept the birds, was more to the point when he said, "I have reason to think that this and the Masked Parrakeet are peculiarly liable to decline. I do not think any specimen has lived very long in captivity and I cannot but suspect that we have not yet discovered its right diet." He also tells us that as long ago as 1888 its price was £5.

To get back to their treatment in captivity. I find that of all the known Parrakeets these are the most difficult to keep in a state of perfect health for a lengthy period of time. My experience with the birds has had to be bought at a very heavy cost. All together I have possessed twenty-four of these splendid birds, comprising three species, and at the present moment I have ten birds of two species.

Owing to their superficially resembling some of the Australian Parrakeets such as the "King", one is rather apt to think that the same treatment will do for both birds. I did until I found to my cost that they are probably the most delicate and difficult of Parrakeets to keep in anything like condition, at least in this country. They cannot exist on the ordinary Parrot seed. To get to know anything about their requirements one has to study them in a state of nature. Unfortunately little has been written about them except data concerning the collection of skins for museums, so to get to know anything about these birds one must visit their native habitat. Unfortunately each species has a very restricted range, some inhabiting islands only a few square miles in extent. After a brief acquaintance with this bird in a state of freedom I realized how mistaken I had been in its treatment. In the first place the climate of Fiji is exceedingly warm and humid; during the period I was there the thermometer was seldom below 100° F. It rains intermittently nearly every day and nearly always during the night; in some parts in the interior of Viti Levu the rainfall is something like 300 inches a year, compared with an average of 30 which we get in this country, so that damp moist heat is essential to their well-being. Birds kept in a dry atmosphere cannot moult out properly; the feathers become brittle and break off soon after they are formed. The birds should be kept outside in the summer having a warm shelter for the nights. It is essential that during the warm summer

showers the birds should be prevented from entering the shelter so that the rain can thoroughly soak their plumage. Indoors in the winter the birds if they don't bathe, and some individuals refuse to, should be sprayed every day with a fine spray. Cold the birds cannot stand, and to expose them to frosts and undue cold winds is to gamble with the lives of these rare and costly birds. In their wild state they seldom leave the hot and steamy forests except to raid the mango trees of the natives, who by the way seem quite content to let the birds have their share.

And then, their food. While the Australian Parrakeets live to a large extent on the dry seeds of grasses and various plants, these birds live entirely, as far as I could see, on fruit—not the hard dry wild fruits of the temperate climates, but on such soft luscious fruits as mangoes, pawpaws, etc. So it is logical that they cannot exist on hard dry seeds such as we are wont to give them in this country. I find that the best food is as follows: as a staple mixture to 14 lb. of a good parrot seed add 7 lb. of large canary seed, 3½ lb. of hemp, 3½ lb. of white millet, 2 lb. of clipped oats, and 2 lb. of pea-nuts in the shells. In addition to this they require an abundance of ripe fruit, sweet apples, ripe pears, ripe bananas, cut up into small lengths with the skin left on; they are also particularly fond of the small sweet green grapes which can be bought so cheaply in the autumn; green corn in the ear such as maize, wheat, oats, etc.; groundsel, sow-thistle, lettuce, peas in the pod, etc. Mine are given, every other day, half a sponge cake per bird which is soaked in beaten-up egg and milk, sometimes with a drop of brandy in, and on the days when they don't get this I give a good insectivorous mixture, mixed with grated carrot and chopped hard-boiled egg. It is also essential that the birds have fresh twigs to bite up: mine are given branches from apple trees and hawthorn with the berries on.

Given this food and well looked after they will live for years, becoming in time very tame and affectionate. Two birds which I possess can talk quite distinctly and one evidently knows what he says.

BREEDING RESULTS FROM FOXWARREN PARK, 1934

By ALFRED EZRA, O.B.E.

Chinese Blackbirds (*Turdus mandarinus*).—Seventeen eggs were laid in four separate clutches and, although they were incubated and several young were hatched, not one young bird was reared.

Crowned Starling (*Galeopsar salvadorii*).—Three eggs were laid by the 16th May. Two young were hatched by the 30th May. One died on the 7th June, but the other left the nest on the 28th June.

Slenderbilled Starling (*Cinnamopterus tenuirostris*).—This pair of birds only laid two eggs, both of which were broken.

Shama (*Kittocincla malabarica*).—These birds laid several eggs, which were broken. One egg was incubated and the young hatched out on the 9th June, left nest 20th June, but was found dead on the 23rd June. Two more eggs were laid by the 25th June and one young was hatched out and the other egg was infertile. The young one left the nest on the 21st July and was found dead the following day. Another egg was laid on the 23rd July which hatched out on the 19th August. As the parents would not feed it, we took it away to try to hand-rear it, but without success. These birds will not feed their young once they leave the nest, as they go to nest again at once.

Water Thick-knee (*Burhinus vermiculatus*).—One young one was reared in August and an account of its breeding with photographs appeared in the November number of the Magazine on page 301.

Roulroul Partridge (*Rollulus roulroul*).—Three eggs were seen on the 21st July and one young one was hatched on the 10th August. The other two eggs contained dead chicks. The young one was almost fully reared but died suddenly.

Madagascar Partridge (*Margaroperdix madagascariensis*).—Eight young were hatched under Bantams and fully reared. Two young were hatched out by the parents and reared.

Fytche's Partridge (*Bambusicola fytchii*).—Six young ones were hatched out but only two of them were reared.

Bronze-winged Pigeon (*Phaps chalcoptera*).—Nine young ones were

hatched out but only four reared ; the other five were killed, by Madagascar Partridges, after leaving the nest.

Swinhoe's Pheasant-tailed Pigeon (*Macropygia swinhoei*).—A good many eggs were laid but only three young were reared. The rest of the eggs were broken by the other birds in the aviary.

Crowned Lapwing (*Stephanibyx coronatus*).—Only one egg was laid which was hatched out on the 27th August. The young one was doing very well, but four days later it was killed and eaten by a Kingfisher.

Wonga Wonga Pigeon (*Leucosarcia picata*).—These birds have done much better this year, and managed to fully rear four young ones.

Chinese Painted Quail (*Excalfactoria chinensis*).—Several eggs were laid in different parts of the aviary. On the 4th July a nest was found, in some long grass, containing six eggs. All these hatched out and were at once removed to a coop with a small run attached. All were successfully reared by the parents.

Indian Green-winged Dove (*Chalcophyes indica*).—Two eggs were laid by the 22nd April, which were broken a few days later. Two more eggs were seen on the 17th May. Both hatched out, but one young was found dead when five days old. The other one was successfully reared. Several more eggs were laid but none were hatched.

Grenadier Weaver (*Pyromelana oryx*).—From three males and several females, seven young were successfully reared. This was exceptionally good considering the number of nests that were destroyed by other birds in the aviary.

Orange-headed Ground Thrush (*Geocichla citrina*).—Although three clutches of eggs were laid none were fertile.

White-cheeked Bulbul (*Otocompsa leucogenys*).—A nest containing three eggs was found in some ivy, and one young was hatched out on the 19th July. The rest of the eggs were infertile. The young one left the nest on the 5th August only to be killed four days later by a male Orange-headed Ground Thrush.

Chestnut-breasted Rock Thrush (*Monticola erythrogastra*).—We had great hopes of breeding this handsome Thrush. Two eggs were laid by the 18th June. Both birds took turns in incubating. Unfortunately the eggs were infertile. No further attempt was made at nesting.

Tambourine Doves (*Tympanistria tympanistria*).—Although I have

two pairs of these pretty Doves no young were fully reared. Many eggs were laid and young hatched, but they will always leave the nest too soon and the parents give up feeding once they are out.

Californian Quails (*Lophortyx californicus*).—Two pairs of these birds laid between sixty and seventy eggs but none were hatched. One pair laid all over the aviary without having any nests. The other pair had a nest which was destroyed by Madagascar Partridges.

Superb Starling (*Spreo superbus*).—Several young were hatched but none reared.

African Wattled Plover (*Lobivanellus lateralis*).—These very handsome birds only laid two eggs this year, both of which were broken a few days later.

Pied Grallina (*Grallina picata*).—These birds made a perfect nest but made no attempt at laying and the nest was taken over by a Sun Bittern.

Hair-crested Bunting.—Two eggs were laid by the 14th June and after the birds had incubated them for some time both the eggs disappeared. Three more eggs were seen on the 16th July and one young hatched out on the 25th July. After five days the young one and all the eggs had disappeared.

Sun Bittern.—Although we have three pairs of these amusing birds only one pair looked like nesting. They got as far as making a nest in a hole in the ground, and after placing a few leaves in it they put a small round stone in and incubated this for about a month.

Among the small Waxbills numerous eggs were laid, but no attempts were made at incubating.

In the animal enclosure I reared successfully the following birds :—

Carolina Ducks . . .	16	Meller's	1
Fulvous Tree Duck . . .	1	White-eyes	2
Rosybills	6	Hybrid Carolina ×	
Pintail	5	Hottentot Teal . . .	2
Bahamas	2 ¹	Orinoco Geese	5
Chestnut-breasted . . .	2	Barheaded Goose . . .	1
Mandarins	20	Blue Snow Goose . . .	1

¹ One white one.

Most of the Mandarin and Carolinas are full winged and as many as sixty were seen on the pond feeding. The Sarus Cranes again nested. One pair in the usual place across the river and brought back one young one. Another pair nested in a field about 4 miles away and brought two young ones back. A third pair also reared one young one away from home. In all four fine young were reared. It is a lovely sight to see as many as seven on the wing at one time. I am afraid I am getting very disliked by my neighbours on account of the row the Cranes make at night. I get letters of complaint very often, but unfortunately, as the birds are full winged, I cannot catch them. I hope it will not end in my having to shoot them. My Stanley Cranes hatched out two young ones but these only lived seventeen days.

AN EASILY CONSTRUCTED OUTDOOR AVIARY

By FRANK W. HANSELL

With a hobby of any kind it gives to the enthusiast an added interest and pleasure in the pursuit thereof if he can make by hand as much of the apparatus necessary to his hobby as possible. In the case of the bird fancier there is an unlimited amount of the equipment which the average individual can make for himself, without any expert knowledge of carpentry or technical skill, nor does he require an elaborate kit of tools.

After endeavouring to breed and rear Budgerigars (*Milopsittacus undulatus*) in small cages the writer found that the only satisfactory and successful method was an outside aviary, details and the construction of which he will try to describe.

It might be said that, while situated at an altitude of about four hundred feet in central Perthshire, he has bred Budgerigars during December with the temperature of the atmosphere at 10 degrees of frost, and he attributes his success to the fact that the birds had plenty of room for exercise and flight.

One peculiar feature in the habits of the writer's birds of both the green and blue varieties, which have been reared in the aviary, is

their dislike for the summer sunshine, and it is most noticeable the quietness of the birds during the day, as compared with early morning and late evening. Even with plenty of shade provided they seem to prefer a secluded corner of the house, rather than show a wing in the flight. Probably this is due to the fact that the birds have got thoroughly acclimatized to the cold, and take badly to the hot weather.

Commencing with the construction of the aviary, it is of great importance to select a good situation for the house, and to have it

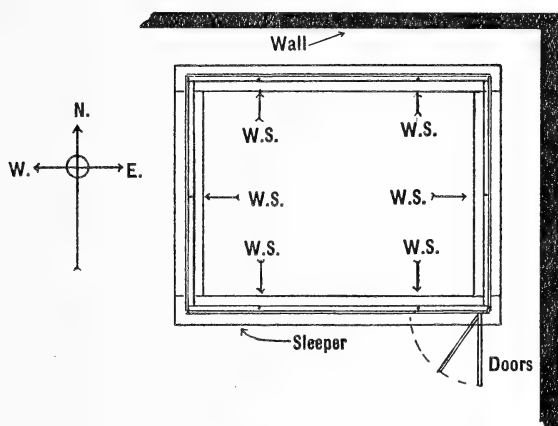


FIG. 1.—Plan.

facing south or west, if possible in a corner where two walls meet, i.e. a wall at right angles to a wall running east and west, as shown on plan (Fig. 1). The protection given by the walls helps to break the cold wind.

The ground should be levelled, at least the area occupied by the house. It is also necessary to have the house well founded: this is done by sinking four old railway sleepers, the ends of which are half checked, as shown on plan. As it is sometimes necessary to remove the aviary, it is advantageous to have it built in sections, the sections made to bolt together with $\frac{3}{8}$ by $5\frac{1}{2}$ in. bolts at points marked "B" on sketches, and the whole house being held down to the sleeper foundations with six 4 in. wood screws at points W.S. (see plan). The sections are made up of 2 by 2 in. deal batten framing, and 6 by $\frac{3}{4}$ in.

weather boarding. As there is a scale provided on the plan the writer will not go into details of the various sizes of the sections. It might be mentioned, however, that on the back and front section the weather

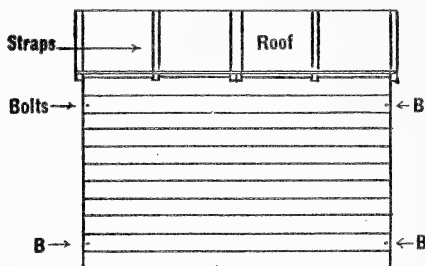


FIG. 2.—Back Elevation.

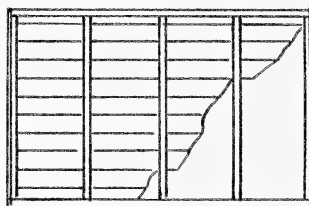


FIG. 3.—Inside View of Back showing 2" x 2" Framing with W.B.

boarding is carried $\frac{3}{4}$ in. beyond the edge of the 2 by 2 in. standard of the frame; this overlap covers the end of the weather boarding on the side section, which has a 2 in. overlap. This arrangement can be

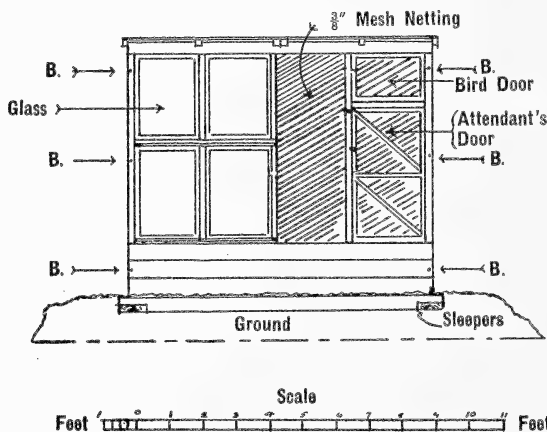


FIG. 4.—Front Elevation.

clearly seen in Fig. 8, and makes a draught-proof joint. The front section has half fitted with glass and half open netting $\frac{3}{8}$ in. mesh. Two doors are provided, one for the birds and one for the attendant.

Netting is, of course, fitted on the inside of the portion fitted with glass. The roof is in two halves and should be the last section to be made. After the four other sections are bolted together, two of the 3 by 2 in.

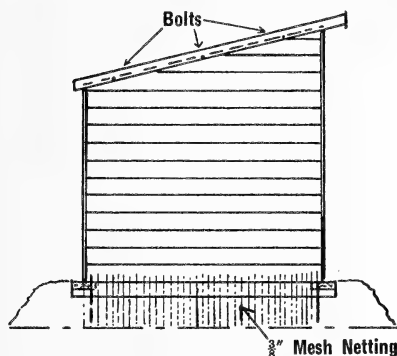


FIG. 5.—Side Elevation.

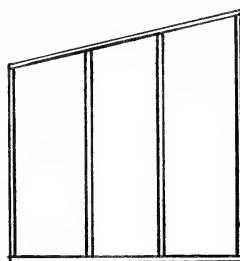


FIG. 6.—2" × 2" Framework of Side Section.

battens are bolted to the sides (see Fig. 5), 1 inch clearance above the 2 by 2 in. of the end section. The other 3 by 2 in. battens are half checked to fit the front and back, and spaced as Fig. 7. The

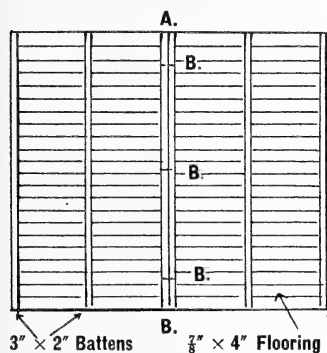


FIG. 7.—Roof.

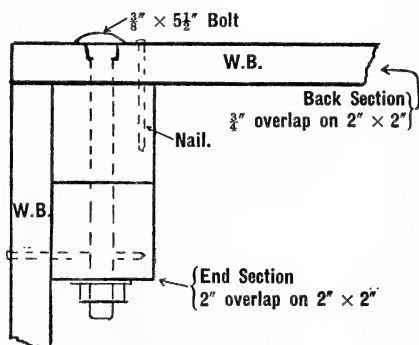


FIG. 8.—Not to Scale.

4 by $\frac{7}{8}$ in. tongued and grooved flooring nailed on, the roof is then sawn in two, between points "A" and "B" (Fig. 7). The two halves are held together with three bolts. The outside covered with good quality felt, and strapped down.

The roof is rather heavy for the average house of its kind, but it has been found that the extra thickness in the timber gives the birds a benefit in warmth during cold weather.,

The whole house is surrounded with $\frac{3}{8}$ in. mesh netting sunk into the ground to a depth of 15 inches, and is taken 3 inches up the first weather board : this prevents rats and mice from burrowing into the interior.

The outside of the house is well treated with creosote, as a preservative against the weather, the inside being painted with an eggshell blue shade of oil paint.

The total cost of an aviary of this size should work out at approximately £13, which may seem expensive, but if bought ready made of the same quality would cost much more.

NOTES FROM SOUTH DEVON

By WINSTON S. ROWE

About a year ago (March, 1934) I purchased two pairs of imported Long-tailed Grassfinches ; in no time three died. I then purchased another cock and two hens, being determined to start the season with two pairs. However, three weeks later one pair died, leaving me with one pair, having lost two pairs and a hen. They were placed in a bedroom facing due south, at night an electric heater was brought into action, and the temperature never fell below 45° F. This taught me a good lesson, i.e. (1) buy acclimatized stock in the winter, or (2) have a proper bird-room so fitted that the temperature can be retained at never under 60° F. until they can be gradually hardened off ; (3) the alternative is to buy imported stock in the summer.

The remaining pair of Grassfinches, however, gave me five fully reared young ones. The nest was built in a Hartz Canary cage. A liberal supply of meal-worms was given soon after hatching and was kept up until the young fed themselves.

Some time in July I purchased a pair of Masked Grassfinches which persisted in sleeping out until September and the beginning of October. They did not seem to be as wild as the Long-tail Grassfinches.

Green Avadavats, of which I had two pairs, were also rather wild, flying into the shelter immediately anyone approached them. Pintail Nonpareils were also culprits in this respect.

A hen Bullfinch which I purchased in July, 1933, laid four clutches of eggs in that summer. All hatched, but not one was reared. Her companion was also a Bullfinch. She then spent the whole of the winter (October to late February) in an aviary to herself, out by day and shut in by night. She had complete freedom and always completely disappeared until dusk. Having sold the cock I thought she might like her freedom, but evidently she preferred it on a fifty-fifty basis. She was not seen again after 3rd March.

I think that this part of South Devon (Torquay) is very suitable for aviculture. Until February of this year on no day have we had weather which might cause distress to the fairly hardy species. Each night my aviaries have been left open, the large windows into the flights being entirely removed. When February and the frosts came, the windows, and in some cases the doors, were replaced. At present I have Redrumps, Alexandrines, a pair of Blue Crowned Conures, and Weavers. Until recently there were Peachfaced, Masked, and Fischer's Lovebirds in three aviaries.

My most successful breeding of Lovebirds has been in the winter: in only two cases have they troubled to lay in the summer, both being fully successful, however. The nest boxes, 16 inches deep and 7 inches square, are left hanging up all the year round.

One condition of the fledgelings has always baffled me, that is, the state of their feathers when they leave the nest. Sometimes all the youngsters would be fully feathered and at other times only feathered on the head and wings. In all cases they were fed the same. Green food *ad lib.* and always sufficient so that there was some to be cleared away early in the morning. I noticed this fact particularly because of one pair of Fischer's which sometimes had fully fledged young while at others they were half-naked. Last winter they were fully feathered, this winter only half-fledged, that is, with this one pair.

Another point I noticed was, if a youngster was due to fly off the nest in a week and I happened to take him out to see how things were going, he would not stay in the nest on being put back and then

they all came out. So I made it a rule never to examine the nestlings after they had been hatched roughly a fortnight.

One other point. I have a young Fischer, believed a hen, which was hatched 24th October, 1934, and which is kept in the house in a box cage because her (?) flights have not fully developed. Every night at approximately 8 p.m. she comes out of her little box and feeds for five to ten minutes. I think this is a strong point for providing artificial light in aviaries, although I do not do so. Her "little box" is 8 by 3 by 3 inches high, top taken off and inverted, with a small entrance hole. This she always sleeps in. She comes out entirely on her own for her "supper".

She has, incidentally, palled up with a cock White-breasted Caique and they both play together on the Caique's cage for a few minutes daily. The Fischer always puts an end to the fun by nipping the Caique's feet.

My Caique is undoubtedly a cock, the outer ring around the irides being reddish. I have noticed three White-breasted Caiques at Primley, two of which have the outer ring reddish, the other bird having a yellowish ring. Two have more or less paired up, at least they tolerate each other, and one has a reddish ring around the irides, and the other a yellowish ring. My Caique is without doubt a male, as unfortunately he behaves like one with some people. I may be wrong in the exact colouring "yellowish", as I only had a quick glance a few weeks ago.

WHERE ROLLS THE RIO GRANDE

By JAMES B. HOUSDEN

It has been the writer's pleasure and privilege to visit the Rio Grande River on two different occasions.

Taking the southern route (one journey is about 1,000 miles by Southern Texas Railway), the journey is a most interesting one to the naturalist. One passes through vast cattle ranges, also large tracts of cactus, sage, and mesquite desert land. At other parts large tracts of irrigated land where the traveller may see flocks of the spring migrators—Meadow Larks, Redwings, Blackbirds, Cow-birds, Bluebirds,

Song Sparrows, and others. I arrived in Southern Texas at the end of March; at that time (before I began my journey to El Paso) thousands of the beautiful Cedar Waxwing were passing on their spring migration to the north.

El Paso is a very fine city in Southern Texas, a frontier city of 77,000 inhabitants; a bridge connects the Mexican city Juarez (8,000 inhabitants).

Before we left the train a little excitement occurred. Two very dark men with long black hair were marched through the train, in chains, by three American and Mexican armed soldiers. American soldiers guard one end of the Rio Grande River, Mexican the other side. I found no trouble in crossing into Mexico.

There is something particularly exciting to the lover of birds when he first visits a tropical or sub-tropical forest; neither have I found the feeling to wear off by repetition. One is always expecting something new in bird life.

One of the first impressions of the Rio Grande River one gets is its beautiful sunsets. The steep forest-covered valleys going from east to west are very beautiful and abound in bird life of great variety. In the spring migration one meets large flocks of Robins, Red Cardinals, Bluebirds, Crow-blackbirds, Meadow Larks, Kingfishers, Cedarbirds, Purple Finches, and various other kinds. At times one feels strangely moved; familiarity certainly breeds an increasing love for all these beautiful hills and birds. Often I have found myself in one of these forest tracts (almost reminding one of the hothouses of Kew Gardens at home). One forgets the heat in beginning a new work in a new locality.

Some of the birds are very interesting.

THE RED-WINGED TANAGER

At a little village on the Rio Grande the song of this little bird is heard more frequently than at any other point. Close by a ranch house there is a small stream bordered by low woods, a favourite resort for these birds. As day was breaking (on the dead branch of a small tree) they would pour forth their morning song. This bird is one of the most attractive of the family of Tanagers.

THE BLACK-CROWNED NIGHT HERON

This interesting and peculiar Heron breeds and also winters from the Gulf States southwards. It is commonly called the Quabird or the Squawk, because of its unpleasant note. In some localities the Night Herons nest among the flags of large swamps, in other localities they are very shy and retiring, nesting and roosting in the tallest trees in dense woods in swamps near water courses.

The Night Herons nest in large colonies, and after sunset may be seen flying to their feeding grounds. In some places the nests are built (amongst thick growths of rushes) in company with the small Blue Heron and Louisianian Heron; these nests are composed of old cornstalks and rushes, placed on the tops of the broken-down tops of the standing cane stalks.

AMERICAN EGRETS

In years that are past probably no species of bird has suffered more from the depredations of the plume hunter than the Egrets. Now that strict laws have been framed and provision made for their preservation, these birds are becoming as numerous as in former years.

SUPPLEMENT TO
“THE GENUS SPOROPHILA”

By ALASTAIR MORRISON

SPECTACLED FINCH (*S. ophthalmica*)

This was described as a definite species in error. It is in reality a very doubtful subspecies of Hick's Finch, quite indistinguishable for purposes of Aviculture. I do not personally believe that it is even a valid subspecies.

RUFIOUS-COLLARED FINCH (*S. ruficollis*)

Male.—Head grey, shading into brownish on the back; throat and upper breast dark chocolate brown; rest of under parts and rump brownish chestnut; wing and tail feathers blackish with a white speculum on the former; bill and legs blackish.

In case it may be of interest, I append short descriptions of the males of the five species mentioned by Russ, although there is no

proof that they have been imported. There is no reason, however, why some of them should not be imported in the future.

RUFIOUS-BELLIED FINCH (*S. hypoxantha*)

Similar to the Fire-red Finch but the chestnut of a paler tinge and the brown of the upper parts considerably greyer in colour.

Habitat.—South Brazil and Paraguay.

BLACK AND CHESTNUT FINCH (*S. nigrorufa*)

Similar to the Reddish Finch but the cock has black upper parts.

CINNAMON FINCH (*S. cinnamomea*)

An extremely doubtful subspecies of the Fire-red Finch.

CHESTNUT-THROATED FINCH (*S. telasco*)

Greyish brown above with a whitish band across the rump ; wing and tail feathers darker with a white bar on the former ; throat chestnut brown ; rest of under parts whitish ; bill blackish ; legs and feet greyish brown.

Habitat.—West Peru and Ecuador.

BLACK AND WHITE FINCH (*S. bicolor*)

Glossy black above, white below with a white patch across the rump ; legs and feet blackish brown ; bill yellow. Size about that of the Half-white Finch.

Habitat.—Brazil.

CORRESPONDENCE, NOTES, ETC.

DUCK HYBRIDS

Dr. Hopkinson's excellent article on hybrids of the *Anatidæ* in the March AVICULTURAL MAGAZINE is of more than passing interest to me as we have had so very many of the hybrids he lists in our own collection of waterfowl. This seems especially true during the last ten or a dozen years. One almost feels that each succeeding generation of tamed, hand-reared birds increases the tendency to hybridization. I have observed that wild-caught males, introduced for a fresh infusion of blood, almost never mate with females other than their own sort (with the exceptions of the ubiquitous Mallard and the Muscovy) but that with continued captive breeding (and possibly the constant association with other species which it brings about) the tendency to hybridize seems much more apparent.

Last season we had a curious example of hybridization. A male Pink-footed Goose (*A. brachyrhynchus*), already well mated with a female of his own species, conceived a violent passion for a female Hutchins' Goose (*B. canadensis hutchinsii*) which lived with her mate in an adjoining enclosure. Being curious to see what might ensue, the Pink-foot male was let into the

enclosure with the Hutchins' pair, and immediately paid violent court to the Hutchins' female. In spite of being severely beaten by the Hutchins' male, he persisted in his attentions to the Hutchins' female, continuing through the nesting and rearing period. Evidently mating took place, as two of the four young reared from the Hutchins' eggs were an obvious cross of the Pink-foot and Hutchins' while the other two goslings were typical Hutchins'. The hybrids partake about equally of the characteristics of the parents, and except for size, strongly resemble the cross of the common Canada Goose with the domestic Gray Goose.

While we have tried every plan of re-mating the Pink-foot male with a female of his own species, he is still unmated, although confined with two Pink-foot females at a distance from any Hutchins'. If an occasional call reaches him from any Hutchins', male or female, it is immediately answered.

A friend reared young some seasons ago from a cross of the Paradise (*variegata*) and Ruddy (*ferruginea*) Shelducks. Last year one of the female hybrids mated with a Paradise male, and hatched and partially reared a brood of young which fell victims to turtles. This fertile hybrid is very much what one would expect among the various sorts of Shelducks, for they are all so very similar in spite of their diverse habitats, that it is easy to think of hybrids proving fertile within the genus *Casarca*. I understand the hybrid female mentioned above is still mated with the Paradise male, so perhaps this season will see young reared to maturity.

The matter of hybridism is so very interesting to anyone absorbed in breeding problems, and Dr. Hopkinson's article is such a real addition to the none-too-complete writings on the subject, that it should be of more than passing interest to anyone who enjoys the large, varied, and colourful family of the Anatidæ.

CLARENCE L. SIBLEY.

EYE DISEASE IN PARRAKEETS

From time to time various treatments are recommended for the troublesome eye disease which attacks Australian Parrakeets when they are kept under dirty conditions. It may be useful to put on record that the 1 in 1,000 solution of mercurochrome continues to prove the only really effective cure for Grass Parrakeets, while Acriflavine which I have been recommended has, like everything else, proved useless.

TAVISTOCK.

OBITUARY

MR. G. B. CHAPMAN

It is with the deepest regret that we have to report the death of Mr. G. B. Chapman, which took place on 16th March.

Mr. Chapman was one of the best known importers of birds and animals, and was latterly associated with the new Zoological Gardens in Belfast. His death will certainly come as a shock to the many aviculturists who knew him.

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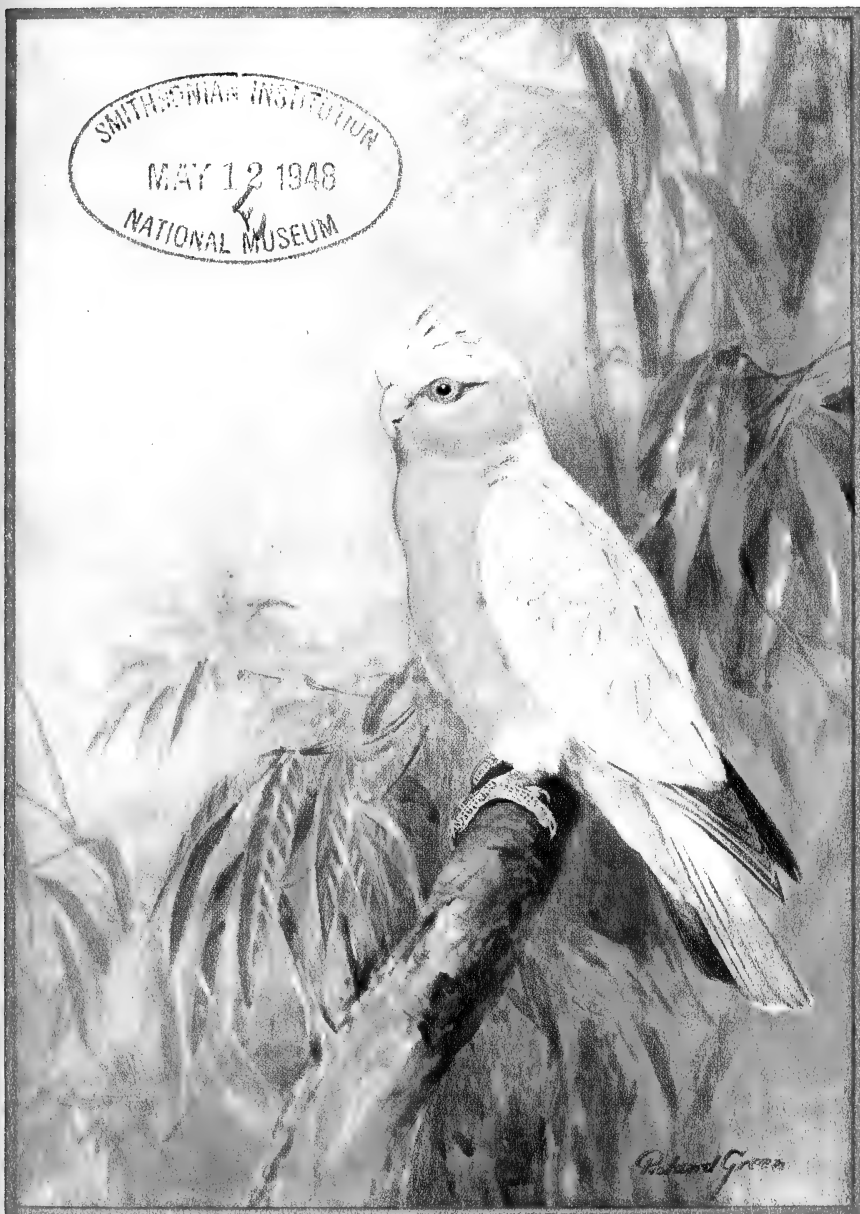
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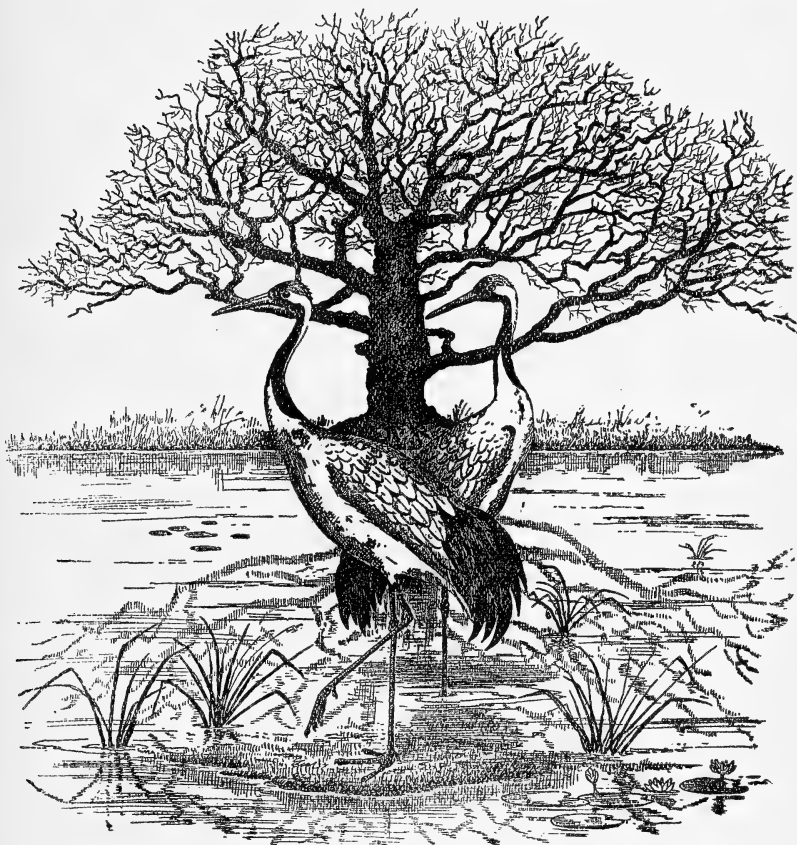
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THE Avicultural Magazine



CONTENTS

	PAGE		PAGE
The Princess of Wales's Parakeet (<i>with coloured plate</i>), by EDWARD BOOSEY	119	Notes on Birds of Fiji, by SYDNEY PORTER	126
The Grass Parakeets — Some Facts and Fictions, by EDWARD BOOSEY	120	Hardiness of a Humming-bird and other Notes on Birds at The Vern, by R. S. DE Q. QUINCEY	139
Notes on the Birds of St. James's Park (<i>with plates</i>), by THOMAS HINTON	124	Obituary	149
		Correspondence, Notes, etc.	149

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Queen Alexandra's Parrakeet
Northipsitta alexandræ

MR. and MRS. EZRA very kindly invite members of the Avicultural Society to spend the afternoon of Saturday, 25th May, at Foxwarren Park, Cobham, Surrey.

Those who intend to be present *are requested to notify the Hon. Secretary*, MISS KNOBEL, at 86 Regent's Park Road, N.W.1 (Telephone No. Primrose 6217), not later than 20th of May, and to state if they require a seat in the special charabanc which will leave 17 Knightsbridge (two doors west of Hyde Park Tube Station) at 2 o'clock.



THE
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THE JOURNAL OF THE
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MAY, 1935

THE PRINCESS OF WALES'S PARRAKEET

By EDWARD BOOSEY

The Princess of Wales's is sometimes called Queen Alexandra's Parrakeet, but I prefer the first of these names, as Gould originally called it after the Princess of Wales before she became Queen Alexandra.

The bird is appropriately named, for no other Parrakeet possesses quite such a combination of charm and elegance as does the subject of Mr. Rowland Green's extremely beautiful and accurate plate. The latter renders a detailed description of the bird's shape and colouring unnecessary, and one need merely add that, unlike some birds, its disposition is every bit as delightful as its appearance.

The cock bird's display is the most spirited and amusing performance, during which he rushes about, uttering excited cries, and periodically jerking his head up and down, as though it were controlled by an invisible wire from above. At the same time, he erects a tiny opalescent shield of feathers on his forehead, and rapidly expands and contracts the pupils of his tawny-orange eyes. All this is, of course, usually done for the benefit of his wife, but most cocks are equally willing to display in order to welcome and entertain their human friends.

These Parrakeets are generally quite devoid of fear, though one pair we have here at Keston, though not in the least timid, is rather less tame than most. A second pair instantly fly on to my shoulders

as soon as I enter their aviary, and they are never so happy as when I bend down, enabling them to chase each other about on my back, until one of them—usually the hen—ends by triumphantly pushing the other one off.

A further very fine specimen, lent to us by H.M. the King for breeding purposes, is at present in a flight cage, but when put out in an aviary is obviously going to be just as fearless and familiar as the preceding pair.

Princess of Wales's need plenty of flying space, and the majority, being quite hardy, are capable of passing the winter outdoors without heat. They are perfectly willing to go to nest, but to successfully rear a brood calls for somewhat skilful management, the most important point to remember being that the cock should never be left in the aviary after his wife has started to sit. She is usually, however, quite capable of rearing her brood single-handed.

THE GRASS PARRAKEETS—SOME FACTS AND FICTIONS

By EDWARD BOOSEY

Since we are fortunate enough to possess here at Keston at the moment pairs of every member of the Grass Parrakeet family with one exception, namely the Orange-bellied (of which we hope to receive two pairs within the next few weeks), I thought a few of our experiments and experiences with them might be of interest, in view of the fact that up to now the amount of reliable published information gleaned from practical experience of keeping and breeding this group of Parrakeets is practically nil.

The reason for this is, of course, that whereas certain members of the family, particularly the Turquoise, appear at one time during the last century to have been considered quite fairly common, even to the extent of being recommended as suitable birds for the beginner, they seem to have been allowed to die out completely, in spite of their reputed prolificacy. Even so late as immediately after the War, I did not for one moment imagine that I should ever see a Bourke's or a

Turquoise in the flesh, and if anybody had told me that I should one day keep and breed Splendids I should have considered my informant a definite, though possibly harmless, lunatic !

It was, I think, about 1923 that I first saw pairs of Blue-wings, Elegants, and Turquoisines—all of them in Lord Tavistock's collection at Warblington.

When, in 1927, we started the Keston Foreign Bird Farm we were particularly anxious to establish a strain of the various Grass Parrakeets, and soon we had breeding pairs of Turquoisines, Elegants, Blue-wings, and Bourke's. For some time we attempted to breed them with their nest-boxes in the shelters, but it was not until these were hung out in the open run that any considerable measure of success was achieved.

For years, in fact up to the present winter, we were forced to treat all our Grass Parrakeets as only semi-hardy, that is to say needing a heated shelter in the winter, the reason for this being that they were so extremely rare, and in case of losses so impossible to replace, that we simply daren't experiment with them.

This winter, however, we have kept two old breeding pairs of Bourke's and many of the young Bourke's and Blue-wings out of doors without heat, and have so far had no losses at all. It might be argued that this winter has been so mild as to be no test of a bird's hardiness, but we have had, nevertheless, at least two spells of very cold weather through which the birds remained quite unaffected.

Having bred no less than twenty-one Bourke's and a considerable number of Blue-wings during 1934, we felt ourselves to be in a strong enough position numerically to be able to test their hardiness. We were aware that one or two people had kept adult Bourke's and Blue-wings without heat during the winter, but were anxious to test the hardiness or otherwise of young birds of the year.

We have twice attempted to winter Turquoisines without heat, but in each case they got chills at the first onset of really cold weather, necessitating their removal indoors. Elegants and Rock Grass Parrakeets we have never yet been able to test, nor, I need scarcely add, Splendids, though I see no reason why the two former should be any less hardy than Blue-wings and I have a feeling that Splendids will prove rather more robust than Turquoisines.

Various quite amazing statements have been made in some of the old books, with regard to the general appearance of the various Grass Parrakeets.

Dr. Greene, for example, in his *Parrots in Captivity*, remarks in the course of an article on the Elegant Grass Parrakeet : “ Not only does this bird resemble the Turquoise in appearance and size, but in habits and in the possession of a tolerably musical voice, especially in the early days of his courtship, when he sings and dances before his mate in a manner which to her, no doubt, is charming, but which to the human beholder verges closely on the ridiculous ” ; and again, a little further on : “ We are disposed to believe,” says Dr. Greene, “ that the Elegant and Turquoise belong to the same species, and that the main point of difference between them—the absence of the red shoulder spot in the former—is not sufficient to separate them. They are probably no more than local varieties of one species to which this bird, the Turquoise, and most probably the Splendid, belong.”

Commenting on this, I may say that the Turquoise and Elegant are *not* the same size, the latter being considerably the larger bird of the two ; and further, I am quite certain that no self-respecting cock of either species would ever dream of singing and dancing before his wife during the breeding season, or at any other time.

How on earth Dr. Greene could have supposed that the only difference between them was the red shoulder patch, and have thought them so ridiculously alike as to be scarcely worth treating as separate birds, is quite beyond me, particularly as his own book is illustrated with coloured plates which, though the birds depicted are often a most peculiar shape, nevertheless do convey quite a fair idea of the colour areas, the illustration of the Turquoise being the best in the book.

What always amazes me most is the convincing air of authenticity with which Dr. Greene manages to endow even the most wildly improbable of his statements, be it the imaginary love-dance of a Turquoise or his extraordinary conclusion that a Blue-banded Grass Parrakeet (obviously the Blue-winged) is “ neither more nor less than a Turquoise in its brightest summer attire ”.

Why, too, did he omit entirely from his book this the Blue-winged,

which one imagines must always have been the least scarce member of the Grass Parrakeet family, since it is the last to survive in any numbers ?

For the guidance of those who are still a bit hazy as to the appearance of the various members of the family, the following points may be of interest.

Largest and dullest of the group is the Rock Grass. This bird is very difficult to sex, and though a trifle larger and stouter than an Elegant is, as a matter of fact, so precisely like one that the two might well be merely different editions of the same bird, the only real difference between them being that the Elegant's very lovely golden-green is replaced in the Rock Grass by a dark sombre olive colour.

Next to them in size (omitting the Orange-bellied, which I imagine is nothing but a glorified Elegant) comes the Blue-winged Grass Parrakeet. This, the least scarce of the group, bears a superficial resemblance to an Elegant, but its green is of a less golden hue and it has a uniform quite wide oblong patch of brilliant dark blue on the wing instead of the Elegant's narrow wing border of two shades of blue.

Next in size comes Bourke's Parrakeet, which, of course, in its harmonious blending of blue, mauve, grey and pink, and also in many of its actions, is quite unlike the others.

Now comes the Turquoise, which is a trifle smaller than a Bourke and is not really like any of the others in the arrangement of its colours, with the exception of the Splendid. The Splendid is very definitely smaller than a Turquoise, with the latter's rather dark gentian blue mask and wing-patches replaced by the deepest possible shining sapphire blue shading near the beak almost into black ; the patches of this colour at the border of the wings being overlaid with feathers of brilliant, rather pale, blue. It does not possess the Turquoise's uneven brick-red patch on the wings.

The most interesting discovery we have made with regard to the Splendid is that there are obviously two separate races of the bird ; or, at any rate, this would appear to be the case judging by two adult cocks we have here, both imported from Australia. One of these has its crop adorned with the more or less round red patch of about the size of a half-crown, which appears in all the old illustrations of the bird.

The other, however, has the whole of its chest, from the blue face mask almost to the vent, the most brilliant scarlet.

To this bird is applicable its alternative name of Scarlet-chested Grass Parrakeet, but this could scarcely apply to the other, which might be called the Scarlet-throated.

At first I imagined that this might be due to age, since most birds' colours have a tendency to get more vivid as they grow older, but that this is not the case seems apparent from the fact that one, at any rate, of the sons we bred last year from the very brilliant cock is clearly going to have just as extensive an area of scarlet as his father.

It should be noted that though a cock Turquoise could never be mistaken for a Splendid, one can quite imagine their respective wives being mistaken for one another. Curiously enough, a hen Splendid is a less brightly coloured bird than a hen Turquoise, the latter's uniform soft blue on the lower part of the wing being in the hen Splendid replaced by a much paler turquoise blue. She also has less blue on the face and is appreciably smaller than a hen Turquoise.

NOTES ON THE BIRDS OF ST. JAMES'S PARK

By THOMAS HINTON, Birdkeeper of St. James's Park

From 1900 to 1935, during my time as Keeper of the Waterfowl in St. James's Park, there have been many changes, particularly in regard to the number of species of waterfowl. Before 1914 we had only a small collection, but since the War many varieties have been added and at the present time there are approximately thirty-six.

The beauty of the lake has been greatly enhanced since the alterations made soon after the War, and visitors are able to study the birds closer. There are also some beautiful paintings by the waterside for identification purposes. A great many of these improvements have been made at the suggestion of the Bird Sanctuary Committee.

The chief feature of the Park is the Pelicans. In 1900 we had a pair of full-winged birds which could be seen on the wing every day, sometimes remaining in





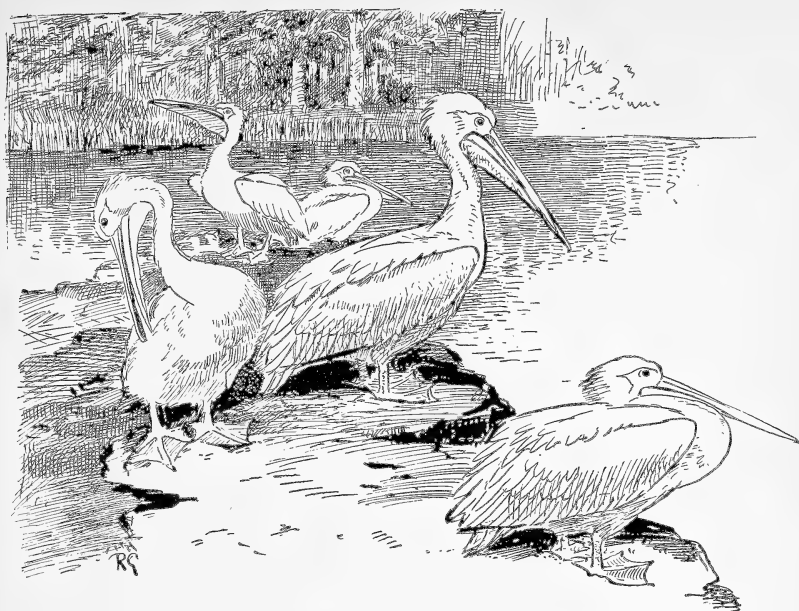
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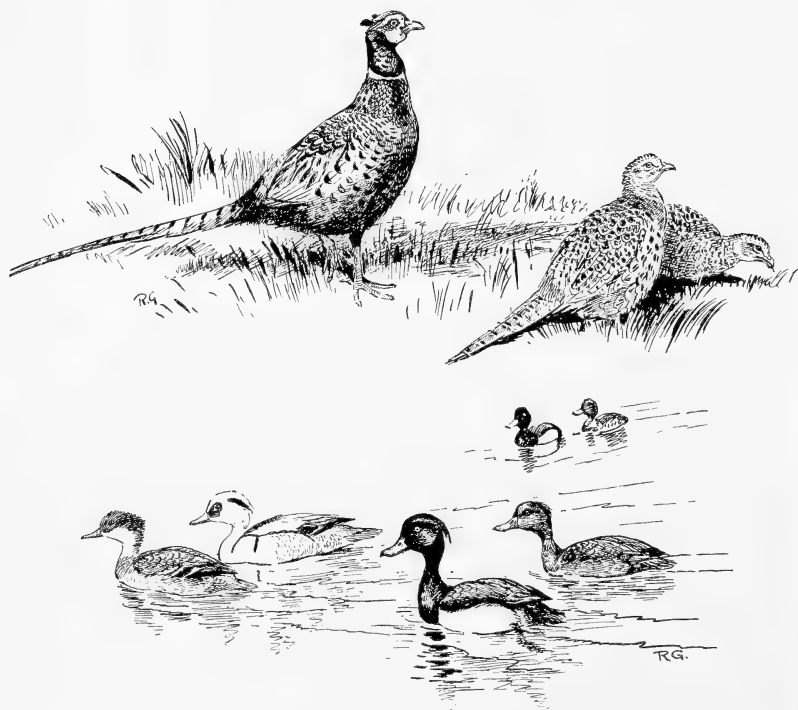
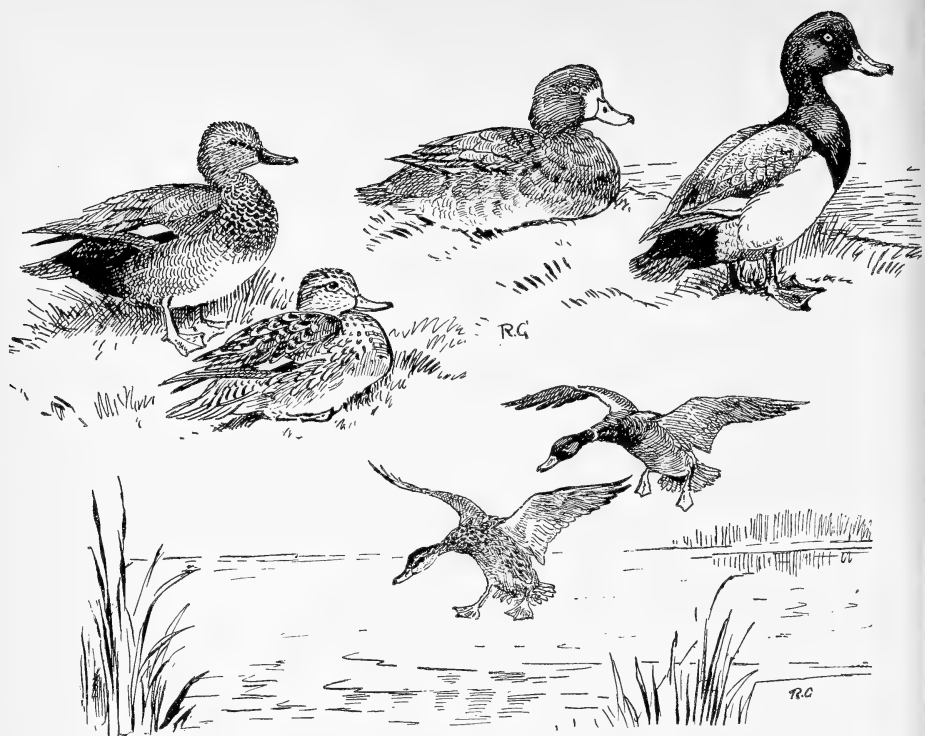
Waterfowl in St. James's Park.

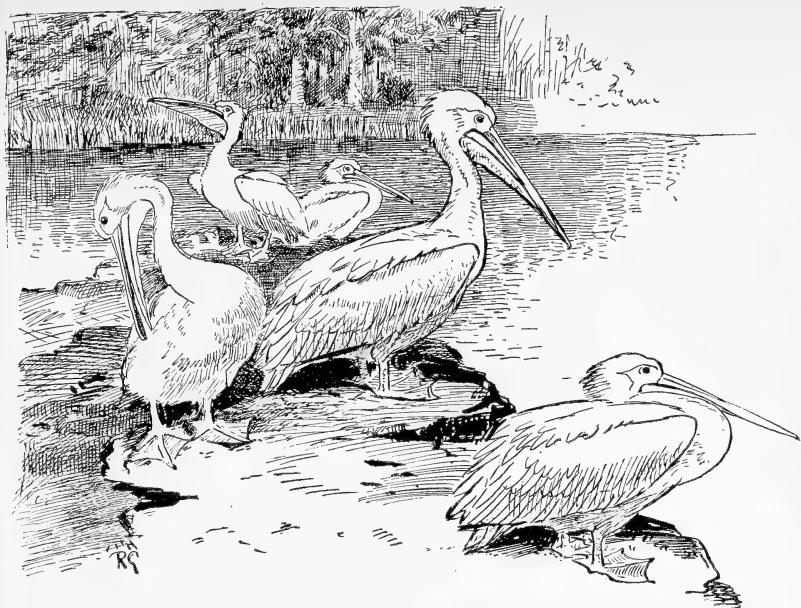
Pochard
Wigeon
Red-crested Pochard
Pintail

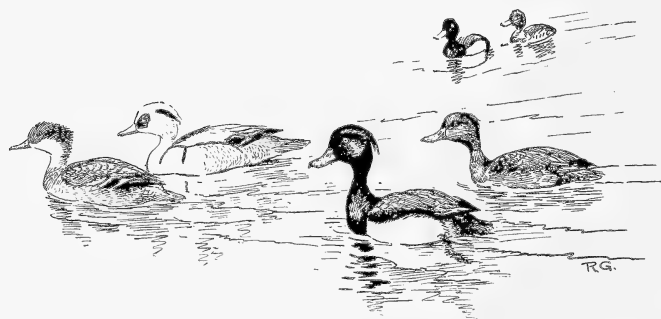
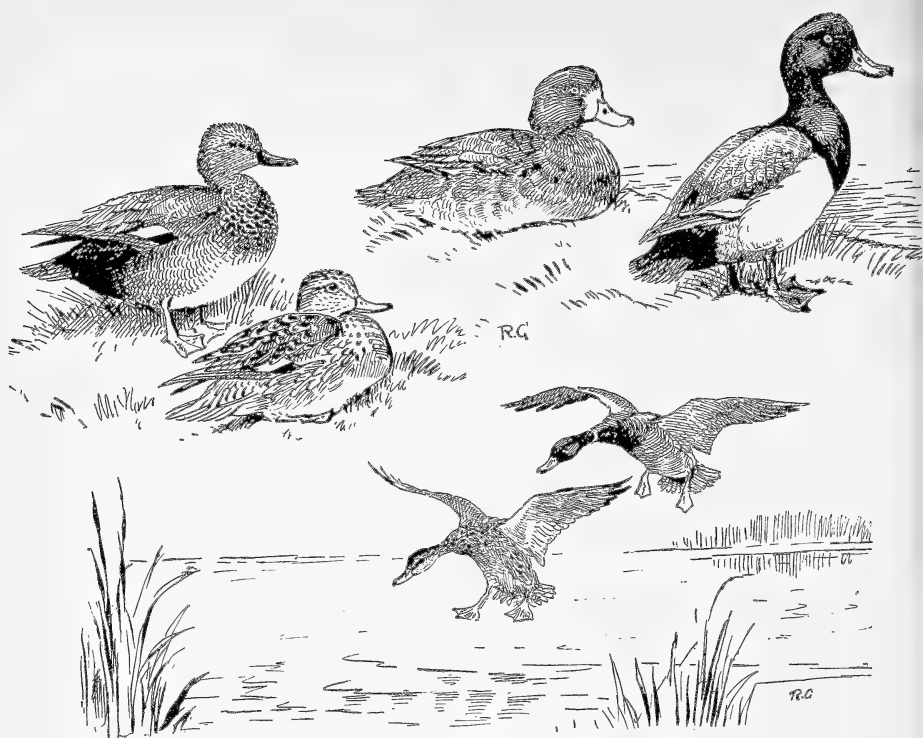
Common Teal
Shoveller
Mandarin Duck
Falcated Teal











flight for as long as an hour. In 1903 four more Pelicans were introduced from Kew Gardens, these being pinioned birds. The full-winged birds resented the appearance of these rivals and disappeared from the lake, both being shot—one on Frensham Ponds and the other at Seaford in Sussex. We still have one of the birds that came from Kew Gardens in 1903, the other three having died at various times. Four more Pelicans were presented a few years ago, two of which flew away in 1929 and were not heard of again.

Early in the War the lake was drained and temporary Government Offices erected, the birds being confined in a small space immediately in front of the Lodge. During the air raids over London several birds were killed by small pieces of shrapnel. A Moorhen was found to have a piece of shrapnel $\frac{1}{2}$ in. in length embedded in the fleshy part of its leg. Also a wild Duck shot during the War was found to have a large ball of shrapnel, about the size of a marble, in its leg.

After the War the lake and Pelicans' rocks were remodelled, and during this time the waterfowl were removed to an enclosure at one end of the Regent's Park Lake. Generous gifts, together with the ordinary restocking, have since made this collection one of the best.

We have on the water a pair of African Grey-headed Shelduck. These birds were a gift to the Park in 1930, and since their introduction have bred here. Another gift was some Whistling Ducks, one of which has become so tame that it will follow me about and allow me to pick it up.

Cormorants were kept in St. James's Park until about 1911, and a pair were reintroduced in 1921. These birds did not attempt to nest until 1932, when they reared one young bird. Two Cormorants were reared in the following year and four last year.

Pheasants were introduced in the Park in 1925, the first being bred from sittings of eggs. Since then their numbers have increased and the birds have flown into Buckingham Palace Gardens, Hyde Park, and Kensington Gardens.

The Tufted Ducks have so far established themselves as to be now almost as numerous as the Common Mallard. Another species breeding rapidly in the Parks is the Gadwall Duck.



In recent years certain parts of the Royal Parks have been set aside for Sanctuaries, where the birds are able to nest without disturbance, and it has been noticed that there is a very great increase in the number of bird visitors to the Parks. All the year round we have the Common Black-headed Gull. Other visitors include: Kingfisher, Green Woodpecker, Landrail, Snipe, Woodcock, Red-throated Diver, Great Crested Grebe, Scaup Duck, Smew Duck, Goosanders, Golden-eye Duck, Red-breasted Mergansers.

In the Island Sanctuary I heard the Cuckoo in 1932. I had never heard this bird in London before.

NOTES ON BIRDS OF FIJI

By SYDNEY PORTER

(Continued from p. 104)

THE NGAU ISLAND PARRAKEET (*Pyrrhulopsis tabuensis atrigularis*)

One day when in Suva a gentleman who was staying at the same hotel, and who knew that I was keen to get the Parrakeets from the various islands, informed me as we were sitting at dinner that he had seen a "black" Parrot on one of the tiny native trading cutters which were tied up to the wharf. I knew that this must be one of the dark species from Ngau, Koro, Vanua Levu, or Taveuni. Needless to say the meal was a hurried one, and we got down to the wharf only to find that the boat had gone. My friend's Fijian was very meagre, but by inquiring from the natives on the other small craft we found that the boat we were looking for was anchored far out in the bay and her name was, as far as my friend could make out, the *Vea Ve Levu* and that she was sailing for the island of Ngau (pronounced "Now") at 6 o'clock the next morning. No one knew whether she had a Parrot on board: there was no boat to go out to her so apparently our quest ended, but I didn't like to be beaten as easily as that. So I rushed up to the person's house who had been acting as my agent and who, being born in Fiji, could speak the language like a native. Being a trader and exporter, he knew all the native trading craft by name, but had never heard of the *Vea Ve Levu*—which, by the way, means the proud or

haughty one. We inquired everywhere but no one knew her or, for that matter, seemed to want to. We got into an old dinghy half full of water and made our way across the bay, nosing in and out of the vessels lying at anchor. By this time it was quite dark, for in the tropics the night falls early.

No one had heard of the boat: there were a hundred and one others, some with very queer names. At last we came to one, *The Island's Pride*. Ah! . . . "Pride!" . . . Could that be her, had we been given a very free or wrong translation? There was no one on board, no Parrot either as far as we could see. We did almost give up hope this time, and rowed back to the wharf. We still pressed our inquiries, however. We asked about *The Island's Pride*. Yes, she was from Ngau and was returning in the morning; that sounded hopeful, but where could we find the skipper? At length we did find him, just leaving a bar-parlour but, as they say in the Islands, he was "very well oiled", which in plain English means he was very intoxicated. Yes, he had a — Parrot, he had brought it from Ngau for a native who hadn't turned up (here were more adjectives quite unfit for the Magazine); so our friend the captain was either going to wring the —'s neck or sell it. Ah, that sounded better in spite of the sanguineous adjectives. Would he sell it now? No, he had a twinge of conscience, such as is usual with hardened sinners when they get inebriated; he felt that he must wait until the morning to see if the owner turned up. My conscience was *not* troubling me just then, so we visited the bar again with our new-found friend—also several other bars; but no amount of "oiling" would stifle his troublesome conscience or induce him to part with the bird. The only thing to do was to wait. If we liked to be down at the wharf at 5.30 the next morning he might be able to do something. So 5.30 it was. But there was no signs of any skipper; 7.30 came and still no skipper. At last I hailed a passing Fijian and explained by the means of the international sign language that I wanted to visit *The Island's Pride*, which still lay out in the Bay.

There was no skipper even there; we had lubricated him a little too well in our efforts to get the Parrot and he had been unable to find the boat; whether he stepped over the side of the wharf I never knew! No one on the boat knew what had happened to him either. How about

the bird ? Someone had called for it late the night before and had gone. Who was he ? Where could I find him ? Was the bird for sale, etc. ? Yes, the bird might be for sale ; the native no one knew, but someone thought he was a friend of "Charlie the Doctor". But if I wanted any Ngau Ka-kas (Parrots) they could bring me plenty from the island. When ? Ah, well, perhaps next year ; maybe the one after that if they couldn't get young ones when the birds nested again !

Once ashore again I took a taxi, such as they were, though I think they would compare quite favourably with the ones in London, and went to my agent's place. Did he know "Charlie the Doctor" ? No, he didn't, but the dusky maid of all work who overheard our conversation did. There is one thing about these dusky maids, they are not such hypocrites about their eavesdropping as their paler sisters are. If in the course of conversation one needs information they will always volunteer to give it so long as they overhear the conversation. In fact our lady friend was his special pal at the moment. "Charlie" was a dusky student from Ngau at the Hospital for training. We went up there, but his friend had just left to take the Parrot to the Cable Station for someone who had been trying to get one for a long time. If we hurried we should catch him before he got there. We did hurry and caught him just before he was entering the building. . . . Had he a Parrot ? . . . No, of course he hadn't, when it was against the law to have one. Ah, what had he got in the box ? He was caught this time. . . . We only wanted to buy it. . . . Oh, well, that was all right, but he was taking it to a gentleman at the Cable Station who was giving him £2 for it. . . . Would he sell it for £3. . . . Why, yes, of course. . . . Natives are not troubled very much with conscience, besides the gentleman at the Cable Station could get another . . . when the birds nested again ! So "Vea Vea Levu" the illusive one, as we called him, became mine.

With a sigh of relief, though soaking wet through—for by that time the thermometer stood at 96° F.—I returned to the hotel to bathe, change, and have my breakfast. So came into my possession one of the rarest, strangest, and at the same time the most lovable of all the feathered pets I have ever owned. He was a real derelict when I first got hold of him, as in fact most of the Fijian Parrakeets are when owned by

natives. I didn't realize how tame he was until I reached New Zealand. On the boat home to England he proved himself a great character. Every morning he would welcome me with a cheery whistle and wait for me to let him out of his cage, eventually climbing on my shoulder, give me a kiss, and be ready to go the round of the other cages. He was the only Parrot I could absolutely trust, no matter what one did with him or how one treated him; he was gentle no matter who teased him, and how fond the ordinary person is of teasing Parrots or monkeys! He took it all with a good-natured resignation. When at last he arrived in England and was placed in an aviary in my bird-room he never lost his confidence in the human race.

In spite of every care, and I learnt through bitter experience the proper treatment of these birds, he never came into perfect feather; his flight and tail feathers always seemed to get broken off and for twelve months he never came into what one would call show condition. There must be something wrong: it didn't seem to be the food, as he was very fat and very lively. Even spraying him every day with water didn't make much difference, so I had an outdoor aviary built, with no shelter from the rain, though each evening he was brought back into the bird-room. At first he was only too glad to be back under a friendly roof. As the summer passed he refused to come back: with a loud "No, no, no" he rushed round very much like a Pheasant. The gait of a *Pyrrhulopsis* Parrakeet on the ground is entirely different from any other Parrakeet. On their long legs they can run very quickly and they carry the long tail held high above the ground.

The warm rain and the sunshine worked wonders and by the autumn he was in perfect condition and looked very different from the derelict of some months previous. He loves to be taken notice of and it is only when several people are taking notice of him that he talks. As "Vea Vea Levu" was too cumbersome and no one ever remembered it, we called him "Jimmie". On being asked his name he would always reply "Joey". On being told it was "Jimmie" he would always answer, "No, no, no! Joey!" He has quite a large repertoire but seldom uses it. Once, when a party of children from the village school were visiting the aviaries, he excelled himself, saying many things I never heard before or since.

Before he could fly very well we used to let him loose in the garden, and he never wandered away though sometimes he was difficult to find when he got into a bush or tree and remained quite still. Eventually he used to get so excited with the attention of a lot of people that he used to fly away and was only retrieved with difficulty. Once, after one of his escapades, when they telephoned me up at the office to say he had flown away, I rushed up and found him trying to push the front door open with his beak !

I often wonder if these birds eat any insect food in a wild state, for once, when two *Zosterops* got into his aviary, he killed and ate them. He also did the same with a mouse which got fast in the wires.

I am fortunate in also possessing, as well as "Jimmie", a true pair of these birds : the cock is a magnificent specimen, though when I first had him he looked a poor enough creature. Once I nearly lost him, he seemed to go into a decline, but after being kept in a high temperature and fed upon a variety of nourishing food he recovered. At first he was so weak that I had to feed him solely on beaten-up egg, milk, and brandy, which I forced down his throat with a syringe. He is a gentle creature but has not the confiding nature of the other male. His mate is a real brute ; we christened her "Satan". She hates the whole human race and is never slow to show her aversion. As soon as one approaches the aviary she flings herself against the wires screaming and flapping her wings with rage, and on entering she has no hesitation in throwing herself at one and inflicting very severe bites. She usually goes for one's feet, for shoes and boots are her aversion, and she can quite easily bite through thick leather. My bird-boy is simply terrified of her and always has to close her in one compartment before feeding or cleaning out the aviary. She sometimes has her "off" weeks when she remains quiet and moody, refusing even to bite or take any notice of one even in the aviary.

The Ngau Island Parrakeet is by far the largest of the Fijian Parrakeets and is several inches longer than the Masked Parrakeet. In colour it is an intense crimson black, similar to the well-known black tulip ; the tail and the flight feathers are brilliant blue, the back, secondary flight feathers, and greater wing coverts are an intense shining green. The feathers of the forehead are thick and hair-like ;

this is a peculiarity of all the Fijian Parrakeets, but is especially noticeable in this species. At the back of the neck, where the red meets the green of the back, is a very thin half-collar of intense pale blue. In flight, especially when seen from below, the bird appears quite black, hence it is known as the "Black Parrot of Ngau".

The island of Ngau lies about fifty miles to the west of Viti Levu, and is only a few square miles in extent—forty or fifty at the very most. I was unable to visit it, but gathered from the natives that it is very similar to Kandavu but smaller, inhabited only by Fijians, and covered with virgin forest. There is every indication that, with the stopping of the trade in Parrakeets and the birds being unmolested by the natives and the island being free from the mongoose, the Parrakeet will easily hold its own.

THE FIJIAN RUFFED LORY (*Calliptilus solitarius*)

This exceedingly beautiful and very distinctive Lory (to my mind the loveliest and most engaging of the whole Parrot tribe, which is saying a great deal, but no doubt those who have kept this loveliest of lovely birds will agree with me) is confined to several of the islands of the Fiji group, where it is fairly abundant. Once one is away in the bush its shrill cries are sure to be heard, and small parties seen as they pass with the most rapid flight from the top of one flowering tree to another.

Why this bird should be labelled with such a foolish title as "*solitarius*" is beyond my comprehension. It is never seen singly and would be the last bird in the world to enjoy a solitary existence. The Kula, as he is called in Fiji, has many friends: he is never shot except by the so-called ornithological explorers; his nest is too high up for the mongoose, and he is never caught by the natives. The only time the bird is taken is upon the very rare occasions when a native finds its nest; he then takes the young to hand-rear and if he is successful he usually sells them to a European.

I have never heard of an Indian owning one; I am afraid that they would be too much trouble to feed, their delicate digestions would not stand the universal Parrot food of Fiji—hard maize. And so they are very seldom kept in captivity, even in their own country, for any length of time, most birds dying of fits. When in New Zealand I found that there

were three of these birds in captivity there, one a magnificent specimen which, strange to say, was kept in a rather small overcrowded aviary in company with many other species of birds. He seemed to get along all right, but he ruled the roost. His brilliant colouring made all the other birds look drab when compared with him. There was another pair in Auckland and their owner very generously gave me one of them, but unfortunately it died before I could take it away. The next two which I came in contact with were in Fiji—a pair of baby birds which had been procured for me from Kandavu. They were the sweetest little things, exceedingly playful and tame, but in very bad plumage.

On the island of Kandavu the Kula is very abundant, especially around the old native buildings, and its shrill cry of “lish-lish” is heard on every hand. I have often watched them on the flowers of the tall coco-nut palms, feeding either on the pollen or the honey of the flowers; the birds seem to start at the bottom of the spray, running up licking the flowers quickly with their long brush-tipped tongues as they go. They often alight on the very ends of the palm fronds and dance along the mid-rib with the characteristic whisking movements of the Lory tribe until they get to the flowers at the base of the leaf. The only time this fairy-like little bird is still is when he spots you, he then eyes you after the manner of a monkey and after a second or two, with a shrill “lish-lish”, he is off.

They are, indeed, like some gaudy blossom plucked from a flamboyant tropical tree. One cannot imagine these radiant creatures coming from any other place than some fair tropical isle in the Southern Seas. What fitting jewels to grace the tropical greenery of those far away sunlit emerald isles, with a cap of the deepest purple like the intenseness of a tropical night, glittering green like the brilliant succulent grass, and a scarlet that makes even the glow of the hibiscus look dull.

They are never to be seen singly, but either in pairs or small family parties or flocks up to a dozen or so. A writer recently stated that this species is in danger of extermination. This fortunately is far from the case: in fact there is no Parrot-like bird whose prospects of survival are so bright. It is abundant on nearly all the islands and most of them, except Viti Levu and Vanua Levu, are free from the three curses of bird life—the mongoose, Man, and the rat. The natives hardly ever

interfere with the bird. On the islands, where the mongoose is, the bird nests far out of the reach of this pest ; the white people seldom if ever shoot it, and rats and cats cannot affect it, so while these conditions continue it will never become extinct. I have never seen it far away from the regions bordering the seashore ; this is no doubt owing to its finding most of its food from the coco-nut palm, a plant which depends on the sea for the distribution of its seed, the nuts falling into the water or on to the beach and being carried often many hundreds of miles before they are cast up.

No bird has a swifter flight than this lovely Lory, the Swallow and the Swift in ordinary flight are slow compared to it. The incredible speed with which it flies from one tree to another make it impossible for the eye to follow it. There is just a misty flash of scarlet and green. The mystery is how it manages to thread its way through the densely planted palm plantations at such a speed without colliding with the trunks.

Around one small village in Kandavu, the name of which I have forgotten, I found this Lory exceedingly common. Its shrill cries could be heard from almost every tree and small parties could be seen in the heads of most of the coco-nut palms, even in the centre of the village.

Besides the two birds which had been procured for me I only met with another bird in captivity in the islands, belonging to a gentleman in the Government service, who under no conditions would part with it. It was one of the tamest and most delightful birds I have ever come across. It had complete freedom and would come when called and play like a kitten, tumbling and rolling over and over. When told to put out its tongue it would shoot out this long brush-tipped appendage as far as possible in a way too comical to describe.

How my two birds managed to survive the voyage to New Zealand I don't know. At all events, they did, and seemed none the worse for it either. Once landed in New Zealand they soon made themselves at home. Here they managed to rid their plumage of some of the horrible sticky mess in which I found them. They had been fed mainly on sweetened bread and milk, which is the usual food for Kulas in Fiji, so no wonder they never look in good condition and soon die of fits.

The owner of the very fine bird in Auckland very generously presented it to me, though I was reluctant to take it as I knew how he prized it. So I left with three birds. The older bird, though tame, would never play like the two young ones, whose great delight seemed to be to roll themselves up in the sheets of paper I used for the bottom of the cages until they were quite hidden ; after hiding for a few minutes like this they would rush out with a great to-do. I have never had such delightful creatures, so full of fun and the joy of life. Every day they bathed, rolling over and over in the water until they looked like drowned rats. In a few months after landing they moulted out into perfect specimens. But, alas ! now comes the sad part. One day one of the young birds got out of a small door in the aviary : whether it opened the door itself I don't know, but it got downstairs where the Keas were being kept while their outside aviary was being built ; in crawling up the aviary one of them bit its leg off. We did everything we could for it, but it died after lingering a few weeks. Another bird I sent to a bird show, where he got the prize for the best bird in the show, but it cost him his life. The heat, smoke, and the change of atmosphere had been too much for his delicate constitution, he died the next day. I never forgave myself for losing him and have never shown a bird since. I only have the one left now. He doesn't seem to miss his companions and is just as ready for a game as ever. There is another one on the way for me, but whether he will land or not I don't know. Lories are not easy birds in the hands of those who know little about them.

The tongue of this bird is very remarkable, it is very long and fleshy ; at the tip is an arrangement like a miniature sea-anemone, composed of many fleshy tentacles which, when the bird is not feeding, are folded in a circle just as a sea-anemone in repose. When feeding or licking one's fingers, these are unfolded and have a peculiar muscular action, and are used for gathering up the honey and pollen of the flowers upon which this bird feeds. Each tentacle can be controlled separately. After death they contract and cannot be seen. I have seen the tongues of many of the Lories, but I don't think the brush tip reaches such a development as in this one. With the birds being tame it is very easy to examine this strange organ. The beautiful ruff is erectile but, contrary to what one would suppose, it is not lifted straight up from the back

but is erected from each side, forming two fans on the side of the head. These birds do well on the usual Lory food, that is a teaspoonful of Mellin's Food, a dessertspoonful of honey, and half a cup each of fresh milk and boiling water ; I find the birds will not thrive on tinned milk. They are also very fond of grapes and very soft pears.

"Kula," the native name for this bird, was also given to a certain operation ; it was also the name given to the strip of cloth which received the blood, and which in Vanua Levu was afterwards hung from the roof of the temple or the chief's house ; possibly it is the blood red plumage of the bird which caused the natives to give it this name.

The plate of this bird is not a very good one, and it gives no idea of the vivid coloration, especially the green of the ruff, which is one of the most brilliant of greens in the whole of Nature.

PEALE'S PARROT FINCH (*Erythrura pealei*)

I had a delightful experience one day. It came most unexpectedly too, as most happy incidents do. In the bar-parlours in Suva, the tiny but very beautiful capital of the Fijian group of islands, one meets with all kind of flotsam and jetsam of the Southern Seas, and often quite by accident one meets with many strange and interesting characters. Many are the life histories I have heard over a glass or two of beer, some of them interesting, some otherwise. Everyone is friendly to a stranger . . . especially if it means another glass of beer ! Quite often I have heard interesting things about bird life.

One day I chanced upon a strange character, one of those individuals who, though possessing a wonderful theoretical knowledge, just seemed to have missed the faculty for putting it to practical use. I always feel sorry for such people, for they seem to have been born in the wrong sphere. He had been everything it was possible to be in the South Sea Islands, but like so many others his downfall had been the whisky bottle. To cut a very long story short, someone had taken compassion on him and given him a tiny shack and a few acres far away in the mountains behind Suva. He asked me to visit him for he said there were numerous birds and also the rare "*personata*" was to be sometimes seen there. So one day I took him at his word and went. Lack of adjectives suitable for printing in the Magazine stops me from

describing the shack and also its condition ! But the view was superb. On every hand were ranges and ranges of forest-covered mountains rising high into the clouds and on every side the blue Pacific with white circles of surf where it broke on the various coral reefs, and in the distance were islands, dozens of them, each one a dream of tropical beauty. In fact one could almost see the whole of the islands of the main group—Kandavu, Ovalau, Ono, Ngau, Koro, and the far distant Vanua Levu and a whole host of small islets.

I was keen to see the lovely Parrot Finch of Fiji. I had seen a few in Suva, but not many. They were usually in small flocks of about six or more birds : I think they must have been family parties, for most of the birds were wearing the immature dress of uniform dull green. I asked if it were possible to secure a few to take away with me. The Solomon Island cook boy was consulted, but no, no one knew of any or wanted to catch them ; but after hours of consultation with other neighbours the dusky gentleman got to know of an Indian who lived some distance away who might oblige. I was given directions as to where I should find him, so I set off. My friend by this time was unable to accompany me, having made good use of a small present I brought him in a bottle ! I set off alone, threading my way through one of the most wonderful tropical forests I have ever set foot in. Unfortunately the dusky gentleman was not at home, but on the way back I found him by the side of the path feeding his solitary cow. I introduced myself and explained my mission ; a long flow of language followed, it might have been Hindustani or any other language for all I knew, but from the gestures and general intonation I gathered that it couldn't be done. At last my dusky friend broke into very bad English, and the gist of the conversation was something as follows : “ God made, you, me, little birds too, birds my friends always, you no like me, take you, fasten up always in room with lock and key. No not ever ! ” After a very lengthy dialogue partly in some Indian language, partly in Fijian, and partly in English, it was arranged that I should return at a late hour, the time for the feeding of the birds, and then I should see them. I had to make a solemn vow that I would not hurt them.

When I returned the house was closed up and my philosopher friend had not returned. I noticed quite a few of these lovely Finches.

awaiting round as though expecting something. I also noticed a large circle of soapstone, about ten feet across, where the earth had been cleared away, and this was swept clean. At length he arrived, and with "You watch, Sahib", he went into the grass house and returned with a bowl of rice of a particularly soft kind which one could crush between the fingers. This he scattered on the cleared area. We waited, but nothing happened; I retreated further away, but there was no move on the birds' part. At length I realized that the birds knew I was a stranger, so I retreated into a Fijian reed hut just a few yards away and watched through a parting in the reeds; that did the trick, and down they came, hundreds and hundreds of them. And before me lay the loveliest thing I have ever seen or perhaps shall ever see again now that my wandering days are over—a living carpet of these feathered gems who seemed to have taken the transitory hues of the rainbow into their brilliant plumage and made them a permanency. It was lovely in the concrete but also in the sentiment, which caused an Indian, who in our conceit we should call uncultured and untutored, to extend the hand of friendship for no ulterior motive to these glittering expressions of Nature, seeking neither to destroy nor to impose his will upon them but seeking to assist them in their own native sphere. I often think when I see on 12th August some of our so-called "best people" blazing away on the moors so near my home that if ever our souls are weighed in the balance as some tell us they will be, that it will not be the soul of the "heathen" Indian that will be found wanting. Truly we need a society to save some of the savages at home and not those on the green islands in distant seas. I told a person in Suva about this little episode, and he was soon anxious to make a bit of money by capturing the old Indian's feathered friends; he asked me for directions, but if he ever followed them there would be no need for my Indian friend to fear.

There was a living carpet of about thirty odd feet in circumference of these gorgeous Finches, though about half of them were in the green immature plumage lacking the brilliant scarlet head and tail coverts. Some of the old males seemed to be a wonderful verditer blue. All were in perfect feather; evidently they had just moulted.

They fed quietly with no squabbling until a Mynah, thinking that

it was missing something, jumped into the middle of them : in a second they had gone into hiding in the neighbouring lemon-trees, where they became quite invisible, and not until the unwelcome guest had departed did they return ; when I showed myself they departed as quickly, and did not return until I re-entered the hut. I spent a whole afternoon watching these lovely creatures, while the old Indian explained in his halting English the doctrine of reincarnation and the need for tolerance to our feathered friends. When he knew that I too loved the birds and never shot nor ate them he nearly fell over my neck with joy, and on my departure loaded me up with all kinds of fruit and said that everything he had was mine.

It was delightful to stumble so accidentally across a simple native with such a naïve and charming love of his fellow creatures. I compared him to a certain governor of Fiji who used to shoot semi-tame Herons from his doorstep to try out a new rifle. I wished that I too could believe in reincarnation ; it rather soothes one's sense of justice to think that there will be a settling up " hereafter ", but I am afraid that I have the mind of a sceptic.

To get back to the bird in question, *Erythrura pealei* is one of the most beautiful of the Parrot Finches : the back is bright grass green, which is also the colour of the wings and the under parts ; the whole of the head and the tail and upper tail-coverts are bright scarlet. The throat and chest are a deep rich blue. The young are a uniform grass green. Some birds appeared to have the green replaced by a brilliant verditer blue ; this may have been due to age or to cyanism.

This lovely Finch is common in most of the islands of the Fijian group and is frequently seen in the gardens around Suva. It haunts the low herbage and bushes, coming out to feed upon minute seeds. Like most of the other Parrot Finches, it moves with lightning rapidity and it is only caught with difficulty. It is strictly protected, and permission is needed from the Governor either to keep or export it.

Parrot Finches are very difficult to get on to seed when captured, especially the Red-headed species. When in New Zealand Mr. Rowland Hutchinson imported a large number, but in spite of everything being done for them they continued to die off like flies ; at last in desperation we put them in an outdoor aviary, this when the weather was getting

very chilly at nights. Not one bird died after then. I noticed that as soon as the birds were put outside they started picking up something from the earth. There were no seeds of any sort visible. I rather think that it must have been some form of chemical material which was necessary to the birds' health. I find that Parrot Finches will not thrive on seed alone; they need an amount of good soft-food, millet sprays, and green food such as flowering grass to keep them in health.

In spite of all that has been written about these birds, I feel that I cannot resist from adding a word in their praise. Of all the small Finches these are the most delightful, always cheery, full of the *joie de vivre*; some have a pleasant little song. They are easy to breed, and so great is the demand for them that a few nests will easily pay for the year's seed bill. They are certainly the most brilliantly coloured of the Finch family and compared with the lovely Gouldian Finch make even that bird look sombre.

If ever you are in doubt about what birds to buy next I would say get Parrot Finches—if you can, and you will love them.

(To be continued.)

THE HARDINESS OF A HUMMING-BIRD AND OTHER NOTES ON BIRDS AT THE VERN

By R. S. DE Q. QUINCEY

In November our Editor asked me to record the fact that a Swallow-tailed Humming Bird (*Eupetomena macroura*) that I brought over with me from Pernambuco in April last year, and that I turned into an outdoor aviary early in May, was still to be seen flying daily in that aviary. However, a certain fear that such boastfulness might bring about swift retribution has kept me from publishing this fact. It is now mid-April; perhaps I should wait until the twelve months are completed before telling anyone that this bird is still in this aviary and is still fit, more fit than any other captive Hummer I have ever seen, and that he was found to be roosting out of doors, not only on two very frosty nights (one registered over 7 degrees), but also on that night of very high wind in the beginning of March.

This bird has only one feeding bottle, which is hung up in a slightly heated shelter (the heat was put on in mid-October), so that he has to use this shelter to feed in, and on some nights in October and November I am certain that he used it to roost in, but I do not think that he ever roosts in it now, unless it is particularly windy when the sun goes down.

The shelter shed (a wooden affair, about 12 by 8 feet, with a glass top light and glass windows) is divided into four compartments. Even with the heat on, one can never guarantee that a really sharp frost will not cause water in it to freeze. The open flight he occupies is approximately 40 by 20 feet, and about 12 feet high.

Up to early in October he roosted almost invariably on a thin dead branch, rather higher than anything else in his aviary, and exposed to any wind that blew.

I got it into my head that he was sleeping regularly in the shelter after the heat was put on, but perhaps he seldom did so, for on a very cold night in January something went wrong with the circulation of the water in the hot pipes, and I had to go into this shelter to let air out of them. On that occasion and on several occasions subsequently, I sought the shelter (which is very sparsely furnished with branches) for him, but he was nowhere to be found and, presumably, outside. I often see him now, roosting high up in an exposed Sea Buckthorn.

He is incredibly fit—always sleek and snake-like, with none of those puffed-out feathers one sees on specimens subjected to stuffy heat.

You might think him a dull coloured bird until you see him sitting slightly below you, two or three feet away, sunning himself, when the dull dark blue of his head, throat, and breast flash sapphire, pale sapphire and turquoise, his green back shines, and his flame-treated steel-coloured tail is spread for all to see.

I did have a moment of fearfulness in October, and caught him up and caged him in the greenhouse. (I dared not let him loose among the other Hummers in it, as I had sampled his ferocity towards two poor White-bellied Emeralds that were put for a few short moments in his aviary in the summer.) He was like all the wild, newly-caught linnets in Club-row, and I determined that he should die of frostbite rather than tear his lovely self to ribbons in a cage. He is quite fearless of other birds and, if hungry, will feed out of the bottle from one's

hand, but he is far more independent than most Hummers, and an absolute devil with some other birds.

He attacked, and would have killed, a Banana Quit I put in his aviary a few weeks ago, though he never bothered about a Scarlet-chested Sunbird (*Chalcomitra senegalensis lamperti*) that was with him all last summer.

I think he looked more beautiful than ever one late afternoon towards the end of March. His food had been taken away to be changed for the night food (of honey and water—with a drop or two of Haliborange in it) and I suppose he felt hungry. In his aviary there is a rockery and near the top of this a small pink-flowered rock plant (I think a *Pulmonaria*) was in bloom and a small *Forsythia* overhanging it and a trickling waterfall;—the afternoon sun was blazing on these. I was planting bamboos at the other end of the aviary; suddenly there was a whirr of wings, and I saw him putting his beak first of all into each of those little pink flowers and finally into each of the *Forsythia* blooms. Seeing Humming-birds do this to flowers in a greenhouse (lovely though it is) somehow doesn't hold quite the thrill of watching this bird "do his stuff" out of doors in England in the bright March sunshine.

It is curious how certain supposedly delicate birds will stand our climate. I think this must depend on their being absolutely fit by the time cold weather arrives. A Blue-tailed Pitta (*Euchichla cyanura*) has been in an outdoor aviary here through the last three winters. His toe nails are not quite what they were, and each November he looks like dying, in what is, I suppose, the usual unusually heavy Pitta moult, but three weeks later he is so bright and new and shining—and, the moment the leaves fall, he is revealed so incomparably beautiful now standing on a rock or log, now crouching facing you in the dying grass and imagining himself invisible—that you have to stand and stare at him, though there are a hundred more important things to do.

I brought over a very perfect pair of the little White-headed Marsh Tyrants (*Arundinicola leucocephala*) last spring. I was told they were delicate (and indeed they had always been considered so), and must go to a tropical house. Having then no such accommodation they were sold, but I am convinced they are quite hardy when fit,

as another odd cock came over for me in July, which I gave to a friend, and which lived in a very exposed, and quite unheated, aviary on cold clay in Surrey up to the end of November, when it was killed by a rat. It was in perfect health up to the day of its death.

A lovely pair of "Lavendeiras", the Brazilian Water Tyrants (*Tenioterna velata*) have been out all this winter. They built a nest in October, domed and covered with white feathers, but that had to be discouraged. They are exquisite little birds, in coloration not unlike our Wheatear, but with movements of a Wagtail and at times of a Flycatcher. They and the Hummer account for most of the small flies that get inside the aviary. They have a delicious watery chuckle, and the cock a habit of putting his head down, drooping his wings, and spreading his fan-shaped tail as he utters this call on some bough or rock.

I understand that in Brazil they walk a lot on the water-lily leaves. I wonder if those in this country would support them? They love skimming over water, and drink often; they are birds I never want to be without. I believe they are starting to build again.

In an aviary the Hooded Tanager (*Nemosia pileata atricapilla*) is a charming small Babbler-like bird, not at all tame and hating close quarters, but beautiful in the sunlight; the cock with his inky brown and snowy breast and his back that looks slaty-blue grey until the sun comes out, when it seems to have shining aquamarine and pale pink lights. The hen is very slim and neat in grey and pinkish buff. They have rather baleful pale yellow eyes and say distinctly, "We prefer not to be too friendly."

Two of the most friendly and most confiding birds here are a pair of Olive Kernel-eaters (*Pitylus viridis*), stoutly built birds that look half-way between a Grosbeak and a Saltator. The beauty of their greenish yellow silky plumage against the dark green of a yew tree is a sight to be remembered. They have striking blue-black beaks and black masks, and are very amusing in their ways, but are destructive to buds and leaves. I brought over two pairs last spring, one of which went to Mr. Ezra. I think this was the first time they came to England. I hope that his are as well as mine appear to be. I was told that they are not at all easy to accustom to artificial food: they certainly would

not do on seed alone. Mine eat canary seed, soft food, meal-worms, grapes, apples, pears, and bananas.

Mr. Webb brought over, with many other interesting birds, a beautiful pair of subspecies of Von Heuglin's Robin-Chats, called the Mombasa White-browed Robin-Chat (*Cossypha heuglini intermedia*). I had to have them, and brought them home in joy. They were tame in their neat travelling cages but, in their freer home, they soon forgot about human companionship and preferred discreet solitude to the temptation of meal-worms. They became so secretive that I thought they might be nesting—a groundless and fantastic hope, but their voices (for they both sing, though the hen does so with less abandon) have surprised, and even startled, people hearing them for the first time. It is an almost unbelievable sound—well off the note—and loud, so loud that on a still evening a quarter of a mile from their aviary you may think that the bird has escaped and be within a few yards of you. Roulade after roulade bursts forth as from some Prima Donna Manquée, careless, inaccurate, ill-trained, ecstatic, rough, discordant, but intensely exciting—yet all that cock did while in his cage was to warble sibilantly and invitingly. Now to see his throat swell is prelude to music of incredible wildness.

They sing most fiercely just before dusk and right through until it is quite dark, and in the morning their voices sometimes wake you before it is light.

Tragedy came last summer in the escape of a much prized Cardinal Honey-eater (*Myzomela cardinalis*), a beautiful bird—but a bully; in the autumn with the death of a Mombasa Collared Sunbird (*Antwreptes collaris elachior*) which, I think, got too fat on Humming-bird food: he was a really delightful little bird in an outside aviary (both these birds were gifts from our Editor); and in the early winter with the death of Robert and Roberta, a pair of Macklot's Pittas (*Pitta mackloti*) brought over by Mr. Frost.

If I ever have these lovely birds again, I think I shall risk them out through the winter. They looked, and were, so fat and well outside, but, in October, I thought they had that look of "feeling cold", so I put them in the greenhouse. By December Roberta was still blooming, but Robert had sat for a week on the hot pipes which, in

the flurry of greenhouse conversion, I had left uncovered, and his toes, from this perhaps, or because he got more than his share of mealworms, swelled, and his and my heart sank. He became very thin and finally expired. He had boxes of leaf mould and trays and pans of water of varying depths, but he preferred the hot pipes. Roberta, who was still fat, but rather hating close confinement in an inner partition of this greenhouse, was liberated into the larger outer part where Robert died, and a month later she was dead too. Shortly before Robert fell sick Roberta appeared to be thinking of getting friendly; they made faint mewling sounds to one another. All the late summer I had been watching for any sign of affection, but whenever they were put into the same aviary Roberta had her military-chested spouse by the tail or scruff, and saw to it that there were feathers flying, so that there always had to be a wire netting breadth between them.

Other rather tragic losses have been two unquestionably fit White-bellied Emerald Hummers (*Agyrtria leucogaster*), both from being frightened at night by mice and flying against the glass in the greenhouse, and, one supposes, fluttering down to the ground, where they became exhausted. One was found wedged and the other definitely nibbled. These Hummers seem more nervous and less confiding than most varieties I have tried.

At last I think I have won an up-hill fight; for the moment all mice are banished from my so-called "Tropical House". This is perhaps an amusing little affair when one recalls the superb structures in existence, but it is 20 by 10 feet of indescribable pleasure to me. It is a "wire-tension" house, three-quarters span, built against a wall. Originally it had wide shelves and an earth floor, and I seized a small corner about 3 ft. 6 in. by 6 feet as a thin end of the wedge. I realized that I should want a certain amount of extra heat in this during the winter, so that it has necessitated the erection of another cooler house "just to help on the annuals", and this has enabled me to seize the whole of our original greenhouse for birds.

So far, casualties with Hummers, apart from the two White-bellied Emeralds already mentioned, have been one Ruby and Topaz that got his foot caught in two overlapping pieces of wire netting. He was discovered too late to bring him round.

After the mouse episodes, I caught up most Hummers and kept them in my bathroom, while a concrete floor was being put in and other alterations made. This greenhouse now has a shelf about 2 feet wide running along the front and one end ; on this I have some deciduous tropical creepers trained up under the glass and, in front of these, various orchids (*Cymbidiums* seem the most satisfactory and look very beautiful) and Crotons and other plants. On the back wall there are pots of orchids held in small metal hoops driven into the wall, and groups of other larger plants in pots on the floor. All can be kept washed down and sprayed as often as the weather permits.

About 4 inches underneath the top shelf there is another slightly narrower shelf, planted with small trailing leafy greenhouse plants (this is always kept moist) ; and about 9 inches below that there are the hot pipes covered with perforated zinc in front, and boards resting on zinc on top—so that birds can't overcook their feet !

The whole thing, though it doesn't look like a tropical forest, gives the appearance of being very pleasant and somewhat exotic, and it has the advantage of being easily cleaned and kept sweet.

The Pittas died in this place before conversion was complete (I don't think the earth floor, which was apt to get sour, did them any good), and I lost three very rare Ground Tyrants—a race whose natural food and living conditions must, I think, be very hard to reproduce—but the Hummers look as fit as possible, and are an absolute delight. A pair of Lesser Niltavas (*Niltava macgreoriae*) have moulted and are now perfect ; the cock sings charmingly, and they are tremendous favourites ; and a very rare and rather wild Ant Thrush (*Formicarius cola*), brought over, as were most of the Hummers, by M. Cordier, seems to be extremely healthy. In a day or two this bird is being turned into an outside aviary, and I am looking forward to seeing him there. This bird has a golden—shading to chocolate—crown, dull dark green back, sooty to inky throat, chest, and belly, and a tail sticking straight up into the air. He is, perhaps, rather more " Rail-like " in appearance than the Short-tailed Ant Thrush that I brought over last year, and that many members must have seen at Mr. Ezra's in the summer and at the " People's " and the " Palace " Shows, but he has the same distinguished walk.

The temperature in this greenhouse in searching east winds has dropped to slightly under 45° ; on several dull cold days it has been a constant 52 to 55° . The Hummers don't appear to mind it at a chilly 45° , but they revel in the sunny days when I can open the top ventilator and the door, when most of them hurry to make use of the small wire entrance lobby—to take an airing. On the strength of this I am building a small wire enclosure on to one end, so that they can enjoy plenty of fresh air in summer time. They look "fluffed out" and miserable on days when one is forced to deprive them of ample ventilation.

It would seem advisable to have at least two partitions in a Hummer's house, as certain individuals will not agree, though by careful watching and caging during extravagantly offensive moments I think I have succeeded in establishing moderate harmony.

In the inner section there is a delightful little Brazilian Emerald (*Chlorostilbon prasinus*) just through his moult; an exquisite Blue-chinned Sapphire (*Chlorestes notatus*), possibly a freak or a subspecies, for he possesses the added attraction of a partially white tail: he is now in his moult, and is always a perfect little gentleman, unwilling to attack or be attacked; and a hen Brazilian Fairy (*Heliothrix auribus poucheti*), a bird that M. Cordier said would not live, but that, after being sat up with for five rather anxious nights, seemed to realize that life and food were worth while after all, whereupon she started growing her exquisite new tail. She was at first nervous, and is rather more fluttering and slow in flight than other varieties I have kept. She flips her long tail up and down as she feeds, and spreads it rather underneath her when attacking or attacked.

I am hoping to get some photographs taken of her when in flight. She is a vivid green above, white below, her four central tail feathers indigo and the three outer tail feathers white and of rapidly decreasing length; she has a black narrow eye streak.

In the outer part of this greenhouse is a Ruby and Topaz (*Chrysolampis mosquitus*), very beautiful and friendly with people; a Black-throated Mango (*Anthracothorax violicauda*), a heavier, more lethargic bird. His porphyry tail is a great attraction, as are his white fluffy boots, which he shows when he settles down to roost. (These are hidden when he is active.)

Then there are two young cock Stripe-breasted Star Throats (*Lepidolarynx squamosus*) just showing colour, that I long to see in their adult perfection ; and last, but by no means least, the biggest and boldest Waterton's Wood-Nymph (*Thalurania watertoni*) I have ever seen.

He is the most intrepid bather. The others are content with sprayed and dripping leaves, and are amusing to watch tobogganing about on the large croton leaves, but "Waterton" prefers to plunge into any basin freshly filled with water and does this repeatedly, hovering over it to pluck up courage for yet another dive. I hope to put one or two of these Hummers in an outdoor aviary this summer.

I have only a few more birds tucked away in the other aviaries : a Motmot (*Motmotus motmota*?) is the largest and is very bright and gay, swinging his tail and "tocking" away. He has been known to tweak the gardener's ear—and though partial to mice, he does not bother to attack any small birds. He had had his wings clipped when I got him, but he is now quite perfect.

A charming pair of ? "Barred" Ant Shrikes (*Thamnophilus doliatus*) brought over by M. Cordier should be pleasant aviary birds this summer. They have a merry laughing call ; the cock is black and white barred, with a black crest, and the hen is brown with black throat streaks, paler below, also crested. They have reddish-brown eyes. Another variety of Ant Shrike (I am not certain of its name, but I think it is *Thamnophilus major*, the larger Bush Bird) came over ; I have lost the cock, but hope to receive another shortly, who was black above, white below, and black and white barred on wings and tail, crested with a bright red eye ; the hen is brown above, whitish buff below, also crested and red-eyed. They don't seem to take much notice of other birds, but will fight their own species if kept too confined.

A perfect pair of Rufus-bellied Niltavas (*N. sundara*), the kind gift of Mr. Ezra, are among my most treasured possessions. I have always loved these birds. The cock is unusually tame, and I hope they may be induced to breed. In their aviary I have made rather an attractive rockery with a pool dripping into a lower pool and then into a pond, and I have tried to contrive small crannies under the drips and have planted hardy maidenhair fern wherever possible, so I hope that they may be induced to think it sufficiently like their Himalayan home

streams. The cock has been inspecting this renovated home with extreme interest and delight, and I hope the hen will presently prove equally thrilled, for I have not put them together again yet, as I find them better separated during the winter.

A pair of Amethyst Starlings (*Pholidauges leucogaster*) are not very enterprising birds; up to now they have only got as far as carrying leaves about. They seem disinclined to become tame, but the cock looks very beautiful each summer in the sunlight, and people always ask what that lovely purple bird is.

A pair of Striated Tanagers (*Tanagra bonarensis*) (the hens seem to be very scarce even in their own country), a curious little "Spine Tail" (? *Synallaxis cinnemomea*) that has a very harsh rasping call when meal-worms are about, a delightful Banana Quit, a cock Purple Sugar Bird, a very perfect Scarlet-chested Sunbird, and some cock Giant Whydahs, whose effective tails and beautiful flight are always good value for aviary decoration, would seem to complete the list of what one might call established birds.

My latest importations are some "Little Widow Tyrants" (the "Viudita Blanca") (*Tanioptera irupero*). Those who have seen a Rothschild's Grackle can realize a Norwich Canary-sized and -shaped Flycatcher of that colouring, and will understand this Argentine and Uruguayan bird's beauty. His shining whiteness in his native country arrested my attention and set me longing to get this bird over here. He is by nature a solitary, wild bird, and is, according to Hudson, the only Tyrant that nests in holes. Mine must have been hand-reared, and are tame, but, caught adult, these small Tyrants would not, I imagine, be easy to reconcile to captivity. They are moulting out into fresh white splendour, and I look forward to the time when I can see them in the full beauty of their flight, when the contrast of their black wing and tail tips will be seen to full advantage.

OBITUARY

MAJOR E. J. T. HOUSDEN

It is with the deepest regret that we have to report the death of Major E. J. T. Housden, M.C., Royal Artillery (eldest son of Mr. J. B. Housden), who died in the Cambridge Military Hospital, Aldershot, from injuries received from falling from his horse. Major Housden was in command of the 70th Battery, 24th Field Brigade, R.A., and had served in the Royal Artillery for twenty-five years.

He was buried with full military honours at Aldershot Military Cemetery on Wednesday, 3rd April.

CORRESPONDENCE, NOTES, ETC.

BREEDING OF THE WHOOPER SWAN

Your members who breed waterfowl may be interested in a rather unique breeding of the Whooper Swan in America.

In 1933, for the first time in America, I believe, a pair of Whooper Swans at the Kellogg Sanctuary, Battle Creek, Mich., nested and reared two young.

In 1934 this pair which bred the previous season laid seven eggs. Six were injured by chilling, but the seventh was transferred to an incubator when the parent Swans deserted the nest and was duly hatched. It was given to a Leghorn hen to rear, but soon outgrew the foster-mother and left her. This bird was successfully reared and became a great nuisance about the place by following the men and begging to be fed.

So far as I know this is the first instance of a young Whooper being incubator hatched and successfully reared. I have been informed that the Whooper does not breed readily in confinement, even in Europe, so this unusual circumstance may be of interest.

C. L. SIBLEY.

SUNNYFIELDS FARM,
WALLINGFORD, CONN.

DANGER IN DUSTY SAND

Mr. Wilcock's letter on the above subject in the January issue was interesting and worthy of attention.

I have been hoping that some of our members with more extensive aviaries than I have would give us their observations on this subject, but as no one has written, perhaps my observations will be of interest to our members, even if they do not cover such a lengthy period as I should like before coming to definite conclusions.

Some sixteen months ago I commenced using clean sea sand from Bridport for all my cages and aviaries, and up to now it has proved most satisfactory. For many years I had always used clean river sand, which I always carefully

selected myself from a beautifully clean river in this neighbourhood (a tributary of the Wye). I daresay this is as free from contamination as it is possible to get anywhere, but with all its washing it appeared to contain far too much dust.

As most of our members are aware, I have specialized in Gouldian Finches for many years (although I have many other birds too), but to my amazement I have not lost a single bird from pneumonia since I adopted the use of this clean sea sand, and I have used it for nearly two winters, from January, 1934, onwards. If post-mortem results are anything to go by, Gouldian Finches and many other exotics seem to be particularly subject to pneumonia, and I had come to the conclusion, before I saw Mr. Wilcock's letter, that the dust and dirt in the river sand was evidently one of the causes of many losses from pneumonia, hence my trying sea sand in preference to the river sand I was able to get locally. I also believe the small amount of saline in the sea sand is good for the birds.

From five pairs of Gouldians I had thirty young ones leave the nests last breeding season. Out of these two died, two were sold, and I still have twenty-six left. Most of these are now well advanced in the moult, and are progressing well. Of the two I lost, one died a few days after leaving the nest and the other whilst I was away from home during a spell of bad weather. Taken all round, these birds (many of which are fourth generation aviary-bred), are the finest youngsters I have seen reared, but I do not put this down entirely to the change in the sand. Their general health and fitness I feel sure is largely due to the almost complete elimination of dust from the aviaries. This sand on the aviary floor is sieved every fortnight—oftener if needed—through a sieve of 225 mesh to the square inch, an unpleasant job with the river sand, but much less irksome now.

My small aviaries are absolutely draught proof, and have no heating arrangements or artificial lighting, but "Sunralite" shutters are fitted during winter and inclement weather. In these aviaries *Ruficaudas*, *Bichenos*, various *Waxbills*, and some forty odd Gouldians spent the winter, and my only losses were the two Gouldians mentioned, one hen *Diamond Sparrow* (egg-bound), and one *Pileated Finch* which died in the moult.

Last breeding season I completely eliminated the use of eggs, bread, and milk, and the results were most satisfactory and encouraging.

It is a pity that more of our members with small or large collections do not send details of their season's breeding results to our Magazine. Personally, I find these details most interesting.

P. W. TEAGUE.

The goat-like smell Mr. Sydney Porter comments on in the *Masked Parrakeet* is a natural characteristic, and is not due to bad management. When properly fed, the *Pyrrhulopsis* Parrakeets seem to do well as aviary birds in sub-tropical countries, even those with dry climates. I sent four or five birds of two species to California where they did well, but unfortunately the *Masked* were both males and the others, which laid eggs, were both females. If they had been pairs I think they might have bred.

In Britain the *Pyrrhulopsis* are birds for the wealthy aviculturalist only, as they need outdoor aviaries for the summer and warm and roomy indoor quarters for the winter. Given these conditions I should not despair of their breeding, though they might be difficult.

TAVISTOCK.

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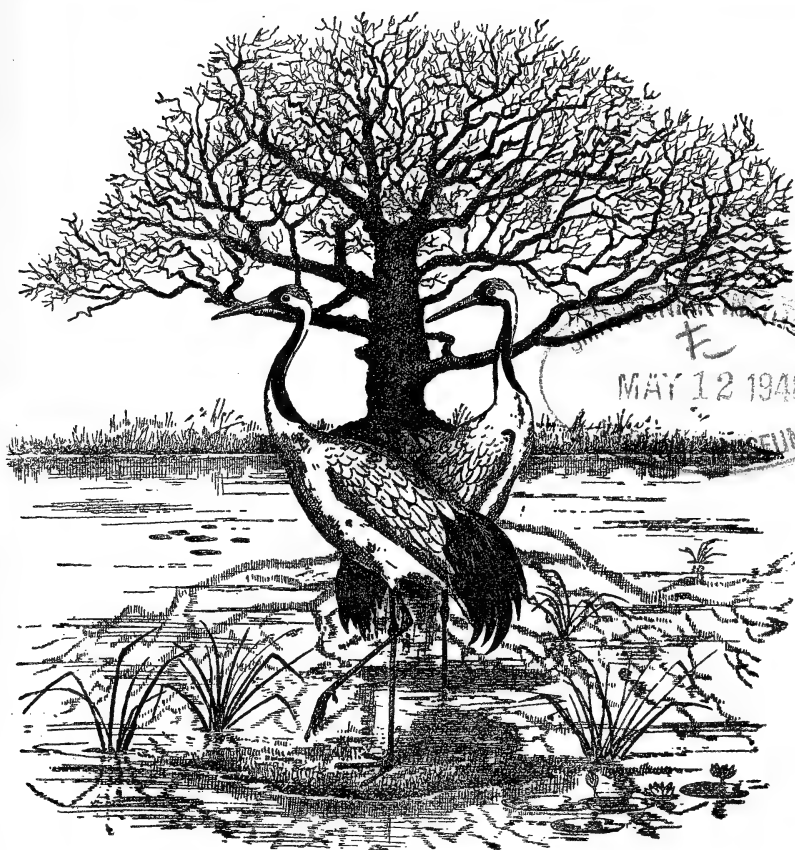
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CONTENTS

	PAGE		PAGE
Further Nesting Notes on Bronze-wing Pigeons (<i>with plate</i>), by Professor CARL NAETHER	151	Mr. Webb's Collection from the Cameroons, by the EDITOR	158
The Indian Crested Bunting and other Birds, by WINSTON S. ROWE	153	Correspondence, Notes, etc.: Tame Birds; Mice; Arrival of Swallows; First Importation of the Carolina Duck; Peter's Spotted Firefinch Breeding	160
The Parrot Ban, by SYDNEY PORTER	156		

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A CONTENTED FATHER AND CHILD.

Frontispiece]

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JUNE, 1935

FURTHER NESTING NOTES ON BRONZE-
WING PIGEONS

By PROFESSOR CARL NAETHER

The pair of Bronze-wings (*Phaps chalcoptera*) concerning which I reported last August, have become very tame, so that it is a pleasure indeed to observe their varied activities at close range.

The first and perhaps most important characteristic of this particular pair of Pigeons is that they have nested almost uninterruptedly since last August, taking but a few weeks' rest during the winter months. This does not mean that they have reared a large number of young. As a matter of fact, to date they have reared only four young, and all singly. Each time both eggs were fertile and both hatched, but each time the young hatching last was either too weak to survive or else neglected by its parents.

The egg-laying capacity of the female Bronze-wing Pigeon is remarkable when it is considered that she has been laying practically uninterruptedly since last January. She is at this moment getting ready to lay once again. Apparently her great activity in this respect has not affected her well-being, for she is as healthy and vigorous as she has ever been. It will be interesting to observe for how long a

period of time she will continue to breed under the present favourable climatic conditions.

For the period of a year these Pigeons have nested in a large hanging basket, though not always willingly. With the approach of nesting time male and female become restless and apparently dissatisfied with their old nesting site. Several times they have attempted to build in a feed-box close to the door of the aviary. As soon as I covered this box, however, they returned to their former nesting place. However, at the present time they have again deserted the hanging basket—this time giving the preference to a box in a semi-dark corner of the aviary. Always up to this time the Bronze-wings have hatched their eggs, though frequently not rearing their young to maturity. The last two settings of eggs, however, they left, incubating them for only ten days. I do not know why they left the eggs.

The behaviour of the Bronze-wings varies in other respects. I left one of their young with the parents which, though getting very restless and nervous shortly before egg-laying time, did not harm the full-grown squab. Very early one morning last week I heard a noise as of much fluttering against the aviary wire and possible fighting. Investigation proved that the old Bronze-wing Pigeons were fighting the squab vigorously. This they had never done before. Of course, I removed the young Pigeon immediately.

The Bronze-wings are very fond of angle worms, which they devour whole and in considerable numbers. Of course, this delicacy is not often available. The seed they relish the most is hemp ; millet they invariably leave in the feed-box. Green feed they do not take at all.

One rather important respect in which these Bronze-wings differ from all my other Pigeons and Doves is that at night they prefer to roost in the sheltered and covered portion of the aviary, whereas the other Doves sleep in the wire-covered flight under the open sky. I shall observe these interesting birds further, with a view to noting other characteristics.

THE INDIAN CRESTED BUNTING

(*Melophus melanicterus*)

AND OTHER BIRDS

By WINSTON S. ROWE

A short account of a pair of these birds which came into my possession in the early part of the year may be of interest.

Briefly the cock is jet black with cinnamon wings and tail, with a moderately long crest which when erected slopes backward and upward. It appears "thin" and not burly and is hardly noticeable in a poor light. In an aviary the hen appears to be of a warm mauve brown, or dusky brown with a short crest, rather more burly and more often erected in a more upright manner. No doubt individuals differ in this respect.

They were imported into England in July, 1934, and were kept caged right through the winter until I turned them out at the end of March. I cannot say how hardy they are for that reason, although heavy showers do not drive them into the shelter or bushes. However, as soon as the sun commences to drop they hop in the shelter and go into a cosy box stuffed with hay and straw. Shrubs consist of euonymus and fir, the aviary being 17 by $4\frac{1}{2}$ by 7 feet high with a shelter, included, of 5 by $4\frac{1}{2}$ by 7 feet high. Aspect S.E. All perches are "natural" because of the amount of "give" and for their more attractive appearance.

Their flight strongly reminds one of the flight of a butterfly. While extremely steady in a cage they appear the opposite in an aviary, the cock being much more nervous than the hen. Sitting in the direct rays of the sun or underneath a bush in a clump of grass is a favoured pastime. I should imagine they are harmless towards any other birds as they took no notice whatever of a pair of large St. Helena Waxbills and never indulged in a mild family squabble with each other even when caged. Before coming into my possession I had ample opportunity of seeing them while encaged in a large bird-room. The only note uttered so far is a mild metallic "spink", somewhat resembling the Chaffinch note. Large canary and two to three meal-worms daily settles the food question.

White and Indian millet, crushed oats, crushed hemp, and various weed seeds are untouched. Soft food may be picked over but not to any noticeable extent. Fruit of various kinds, bread and milk, nectar mixture all went untouched.

Occasionally a few pieces of chopped scalded raisins are picked over. So far they take no interest in small gnats, moths, and other insects on the wing, but if offered in a dish they are then eaten with gusto. As a matter of interest I have tried nearly every food and seed, but canary and a couple of meal-worms each keeps them in tight feather and has kept them in perfect condition through the winter. Five or six meal-worms each per day is rather too much, as the cock soon loses his sleek and glossy plumage and thereby loses half his attractiveness.

While not gaily plumaged they are very noticeable in an aviary, the cock especially so, and appear to have been sprayed with a thin oil, or so a visitor thought!

Seeding grass has been offered, *Poa annua* only so far, but remains untouched. Greenstuff and shrubs likewise escape their attention.

5TH MAY

Have just exchanged the Buntings and St. Helena's for a pair of Silver-eared Mesias which have always been on my "Wanted" list.

The St. Helena cock had a very narrow escape yesterday as he managed to squeeze into the Black-headed Sibia's aviary. Hearing a continued snapping of beaks and knowing that the Sibia rarely, if ever, miss anything on the wing, I rushed down to investigate. There was the cock St. Helena very calmly just escaping both the Sibias' beaks by a fraction as they darted after him. Had the aviary been about 6 feet square I should have considered myself lucky to have found any remains at all, as the game of "follow my leader" must have been going on some time.

When I turned the Mesias out great excitement prevailed among their "relations". The Sibia and a pair of Pekin Robins in an adjoining aviary vied with each other in chattering at the new-comers. All three pairs then set to and simply shouted at each other for a solid five or six minutes. I have, by the way, had three pairs of *Liothrix*, all hens

and all guaranteed true pairs. Mr. Johnson supplied me with this pair and the cock enjoys singing lustily at 6.30 a.m. and right through the day until dusk. The Mesias, when fed at 8 a.m. daily, always go firstly for the chopped grape and then for the meal-worms. Grapes are cut with scissors into about six pieces and I find that they are preferred this way. A pair of Virginian Cardinals would not touch any fruit until I cut up their grapes for them and now they enjoy pear, chopped and scalded raisins, and, of course, cut grapes. The cock of this pair (incidentally my fourth pair) also suffers, luckily, from a singing complex. Three other cocks only sang "Chow, chow, chow", etc., gradually fading away into a final weak "cheugh". My present cock has so many notes and variations that I find it well-nigh impossible to put the notes on paper.

Hen Virginians have always proved rather more delicate than the cocks, and usually have a doubtful period when first turned out, while the males seem to have constitutions of iron.

The question of the number of meal-worms to give per pair of birds daily is quite debatable, the number varying with different authorities, and it always appears doubtful whether the number stated is *per bird* or *per pair*. The quantity I use at present is as follows:—

Black-headed Sibia	6-8 meal-worms daily <i>each</i>
Silver-eared Mesia	4-6 " " "
Pekin Robins	4-5 " " "
Virginian Cardinals	5-6 " " "
Red-crested Finches	2-3 (small) " "

Other birds I have possessed had, per bird:—

Green Cardinals	4-6 meal-worms
Red-crested Cardinals	3-4 "
Pope Cardinals	3-4 "
Shama	8-12 "
Superb Tanager	2-4 "

When possible two-thirds are given in the morning and the rest at night, well before dusk.

I am indebted to Mr. A. Sheriff for advising me as to the number

of meal-worms for the Sibia and their general feeding. He increases the number of meal-worms from 6-8 in summer to 10-12 in winter.

Hawking insects on the wing is a method by which the Sibias are adepts while the Mesias usually run and hop along a branch and but seldom fly after the tiny victim. So a reduction in meal-worms is rather necessary in summer. In a large flight more meal-worms may be given with a corresponding reduction in a cage. An increase in number is allowed when moulting.

My brother-in-law once said, after seeing some meal-worms in bran, etc.: "I suppose there is as much goodness in two or three gnats as in one meal-worm." How far wrong was he?"

THE PARROT BAN

By SYDNEY PORTER

There has been a lot of talk recently as to whether the "Parrot Ban" will ever be lifted. Personally I shall be glad if it is never lifted. I don't want to give the impression that because I have a permit I am taking a dog-in-the-manger attitude in not wanting anyone else to have one—far from that. In this letter I am dealing only with the commercial side of the question.

Most of those people who clamour to have the restrictions removed are those who profit by the sale of Parrots. The people who advertise, "Talking Parrot and Cage, 30s.; money back if not satisfied," etc.

To me it has always seemed iniquitous to make such intelligent animals as Parrots the object of commercial exploitation. The plumage trade was bad enough but the Parrot trade was equally as bad. Though the methods were different, the end was the same.

Before the Parrot ban thousands and thousands of wretched Parrots were shipped to this country in miserably small and insanitary cages, hundreds together with hardly room to move: very often they were left to the tender mercies of the butcher, or someone else on the ship who knew very little about them. They were fed mainly on soaked maize and kept exposed on the open deck. Hundreds died

on the way over and a goodly percentage died in the dealers' shops. The survivors were sold, not to aviculturists who had proper accommodation for them, but to people who, tempted by the offer of a cheap talking Parrot, bought one as a form of amusement, in the same way as one would buy a wireless set these days. Very often the bird was diseased and died in a short time and even those which were not diseased often died through wrong feeding. I have known of many people who had as many as six birds before they got one which lived.

Then, about the thousands of birds which were caught during the breeding season and the young left to die of starvation. My opponents will no doubt tell me that most of the Parrots imported into this country were hand-reared by kindly natives A small percentage perhaps were, most of the Amazons and the majority of the Greys, but what about the Ringnecks and Galahs which formed the greater percentage of the "30s. Talking Parrot and Cage" trade, also the thousands of Lovebirds, Alexandrines, Budgerigars, Rosellas, etc.? These were the main sufferers. I have seen the floors of the crates and cages containing these birds thick with dead and dying birds. Most of these birds when they land are sold, in miserably small and inadequate cages, to working-class people all over the country, and few birds survived after the first twelve months. "All the better for the trade," say the dealers.

Few people realize that Parrots in a wild state do not feed upon seed any more than "softbills" feed upon soft food. They live mainly on soft fruits, berries, and milky corn in the ear, if they can by chance raid the plantations of natives. A goodly percentage of Parrots die in the transition stage from the wild food to hard seed.

I do not want to appear like some politicians who merely denounce the existing state of affairs without offering a solution to the problem. Firstly, I would suggest that only certified collectors, of which there are some very excellent ones now at work, should bring in a limited number for aviculturists who have permits. These permits, I would suggest, be given to any one desirous of breeding or keeping the birds under decent conditions.

No doubt I shall be asked whether I am going to deny the working man the pleasure of keeping a tame Parrot: this is a stock phrase and

was, no doubt, used in a similar sense when a Bill to prevent dog- and cock-fighting was suggested. I would stop any amusement when it involved cruelty.

In New Zealand birds can only be imported by the Avicultural Society, and much the same should be done here on an extended scale: an official could easily be paid out of the profit arising out of the distributing of the birds. On the other hand, Parrots could be imported to people such as the Keston Bird Farm, Ltd., who seem to make a success of the breeding of the rarer Parrots. Birds bred from such wild-caught stock would be strong and free from in-breeding.

MR. WEBB'S COLLECTION FROM THE CAMEROONS

Mr. Webb returned from the French Cameroons at the end of April with a wonderful collection of birds, most of which were seen for the first time as living specimens in this country. *Ceratogymna atrata*, a medium-sized black Hornbill with blue wattles, is a curious and interesting form. Three specimens of *Ispidina picta picta*, a lovely, small insectivorous Kingfisher, were perhaps as beautiful and as interesting as anything in the collection. Mr. Webb imported the sub-species from Portuguese East Africa a few years ago. A small Tinker Barbet, *Gogoniulus leucolamia leucolamia*, was certainly new to this country. The Gaboon Forest Robin, *Stiphrornis erythrothorax erythrothorax*, belonging to a genus no member of which has reached this country before, was perhaps the most exciting form from the purely ornithological point of view. Systematists are not agreed upon the true position of this genus, for by some it is considered nearly allied to the *Sylviidæ*, while others are inclined to place it in the *Turdidæ*. It is to be hoped that whoever has the chance of observing its habits in confinement will put on record any points which may help to show more clearly its real relationship. Two Bush Shrikes of different genera, *Laniarius lühderi* and *Malaconotus cruentus gabonensis*, were both very attractive, the former more particularly on account of its tameness, curious calls,

and lively disposition, and the latter, a female, on account of its striking colour. Seven species of Sunbirds, six being new, were represented, *Anthreptes tephrolæma tephrolæma*, *A. collaris hypodila*, *Cyanomitra verticalis cyanocephala*, *Chalcomitra angolensis angolensis*, *Cinnyris minullus minullus*, and *C. superbus superbus*. The most interesting were the *Cyanomitra*, a genus not before imported alive, and *Cinnyris minullus*, the smallest of the African Sunbirds, while for beauty of plumage *Chalcomitra angolensis* and *Cinnyris superbus* must be given an equal place. Mr. Webb was certainly lucky, as well as skilful, in procuring *angolensis*, undoubtedly a very rare species in the locality he visited. A new Glossy Starling, *Lamprocolius purpureiceps*, was a splendid introduction to aviculture, and must be counted one of the finest species of a very beautiful genus.

Among the *Ploceidae* the pair of *Pirenestes ostrinus rothschildi* were of extraordinary beauty, and *Malimbus cassini* was the finest of that interesting genus of insect-eating Weavers, other species represented being *M. nitens* and *M. scutatus*. The insectivorous Negro Finches, of which there were three species, *Nigrita fusconata fusconata*, *N. bicolor brunnescens*, and *N. canicapilla canicapilla*, were among the more striking additions to aviculture, and it will be interesting to see if they prove willing to breed. It was pleasant indeed to see a new sub-species of *Mandingoa*, namely *M. nitidula schlegeli*: it is certainly more beautiful than the forms which arrived from South and East Africa last year. To complete the list we must mention *Spermophaga pustulata*, perhaps not so good as the species brought back last year from the Usambaras, and two extremely lovely Waxbills *Estrilda nonnula* and *E. atricapilla*.

A. C.

CORRESPONDENCE, NOTES, ETC.

TAME BIRDS

The article "Two Tame Birds" in your March issue gave me a great deal of pleasure inasmuch as it must appeal particularly to the member whose experience of aviculture is not particularly great and whose opportunities of experimenting are, for various reasons, limited. In my own case I started with Waxbills in a large cage outside, followed very shortly by a small aviary with Diamond Doves, Java Sparrows, and Rainbow Buntings. Next an octagonal aviary 7 feet across with Longtails, Zebras, Cubans, and Singing Finches; and still something lacking. So after lunch, reading, and inquiry, I bought a Golden-fronted Fruitsucker, believing him to have a golden voice and confiding manner. He was all Mr. Workman says he is. He flung orange, apple, grape skins, pips, and unwanted ants' cocoons all round the room and shouted like an urchin. Meal-worms he despised, but the sight or sound of a fly would drive him nearly frantic until I had caught it for him. But he was no use as a tame, really tame, bird. He was only happy in his cage. Outside of it he sat motionless for hours and had to be driven in again without deriving any benefit. I had no permanent aviary accommodation for him as I dare not put him with smaller birds on account of the vicious disposition I believed these birds to have. So back he went to the dealer for a pound less than I gave for him.

I then built two aviaries round an existing privet hedge and some laurel bushes. In May I put a "pair" of Spreo Starlings in one and a pair of Shamas in the other. Both very quickly became tame and always came to a point of vantage on my approach. One Starling I frequently had out in the garden where it would follow me about or explore for insects without ever leaving its bounds. The other was more adventurous and occasionally spent a night out, eventually disappearing altogether after some weeks.

At liberty Spreos are delightful but in an aviary or cage are bored and uninteresting, except when singing their peculiar repetition song, through their teeth as it were, with a mouth full of meal-worms all wriggling in a row. They made no attempt to nest.

The Shamas were the more attractive and both sang a few loud notes, the cock only whistling softly to himself in a corner quite hidden from view. Twice the hen escaped but returned immediately to the meal-worm tin. Though not showy I think the hen Shama an extremely beautiful bird and very graceful.

Now I am waiting for someone to follow Mr. Workman's example and let us have a similar article on birds perhaps less well known but as beautiful, tame, and easy to care for as the two he finds so pleasing. I feed mine on mosquito with occasional carrot, apple, Bemax, or halibut oil mixed into it.

GEOFFREY BANKS.

MICE

Most bird-keepers at some time or another seem to be troubled with that foul pest, the common mouse. It is one of those pests which no amount of cleanliness will keep out of one's bird-room. When once a mouse gets in it almost seems as though by some kind of telepathy it communicates the

knowledge to all its friends in the neighbourhood, and in a month or two it will appear that one is keeping mice rather than birds.

Not only are mice dangerous, often frightening birds in the night and causing them to crack their skulls, turning out nesting birds, and eating and fouling all the food, but they cause one's bird-room to reek of such a disgusting odour.

If one has a brick and slate building it is exceedingly difficult to eradicate them in spite of every effort. My first greenhouse aviary I had to abandon owing to the mice getting in the earth and the flower-pots. In fact just over twelve months ago my bird-room got so overrun that I despaired of ever getting rid of the pests. Happening to relate my troubles to Mr. Seth-Smith, he showed me an extremely ingenious trap of his own invention which he told me had rid the bird-house in the Gardens of all these undesirable occupants. I took careful measurements and got one of my workmen to make a couple. In just over six months I must have caught about 300! and have completely rid my bird-room and aviaries of them. These traps can be used in any aviary with impunity.

Several of my friends have had similar ones made and have used them with equal success. The only thing to remember is to let the mice get into the box before setting the traps inside so that it gets a "mousey" smell: this seems to give the mice confidence to enter.

The object of this letter is to try and induce Mr. Seth-Smith to kindly give particulars of his ingenious invention through the medium of the Magazine, and I am sure if he does so he will earn the eternal blessing of Aviculture. Just one more word, seed scattered near the entrance-holes helps to entice the mice in and the trap should never be cleaned out, the worse it smells the more it attracts the mice.

SYDNEY PORTER.

ARRIVAL OF SWALLOWS

Although our scientists have as yet no knowledge of the fact that our climate is rapidly changing the birds know it, however, for on 6th April last I saw a pair of Swallows, in vigorous condition, flirting over Staines Bridge. On 13th April I saw another pair at Lingfield, Surrey. On 26th April, in motoring from Cowes to Ventnor, I.O.W., I saw several pairs. Swallows also remained in the Isle of Wight last winter until the second week in December.

H. MOORE, F.Z.S.

[The Swallow arrives in this country, as a rule, in the second week of April, but there are records of its appearance earlier in the year, and as long ago as 1774 one was seen by Gilbert White on 4th April.—ED.]

PETER'S SPOTTED FIREFINCH BREEDING

This is just to notify you that a Peter's Spotted Firefinch baby left the nest to-day (17th May). I cannot tell yet if there are more as I dare not go near! A few years ago I had three left the nest, one died (or was killed),

and on the second night the remaining two were scalped so I have taken precaution this time and turned all out of the aviary. I have also reared the Yellow-winged Sugar Birds again this year.

(MRS.) K. DRAKE.

PS.—I have just been up to the aviary and find *four* young Peter's out of the nest.

FIRST IMPORTATION OF THE CAROLINA DUCK

Mr. Hugh S. Gladstone has sent me the following note, which is of such interest that with his permission I give it wider publicity. He writes: "I have found the following statement in Mrs. A. M. W. Stirling's (*née* Pickering) book, *Annals of a Yorkshire House* (1911), vol. i, p. 50.

"The Carolina Duck has laid no eggs."

"This is a statement by one, Peach, the gardener at Cannon Hall, Barnsley, Yorkshire, in a letter written to William Spencer (*circa* 1745).

"Is not this a very early date for the presence of the Carolina Duck in England?"

It is indeed (perhaps the earliest), for it is about the same date as Edwards' first description under the name "Summer Duck" and only just over ten years before it was first named *Anas sponsa* by Linné in 1758. The first birds to reach Europe were probably brought by those returning from the various Virginia Company expeditions, say about 1700, and if so England, we can presume, was the most likely place in Europe for their first arrival, as the original Company was an English one. The birds at Cannon Hall may well have been the actual birds seen both by Edwards and Linné. They would naturally have been popular and by Latham's time were evidently quite common, for he writes (vol. x, 1824), "often kept tame . . . and breed freely."

E. HOPKINSON.

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THE Avicultural Magazine



CONTENTS

	PAGE		PAGE
The New Zealand Tomtit (<i>with plate</i>), by the EDITOR . . .	163	Breeding the Dufresne Waxbill, by H. S. SEWELL . . .	182
Notes on Birds of Fiji, by SYDNEY PORTER . . .	164	Mr. Seth-Smith's Contributions to the Magazine, by Dr. E. HOPKINSON . . .	184
Breeding of Courier Water-Tyrant, by J. DELACOUR . . .	171	Correspondence, Notes, etc.: British Bird Breeders' Association; Feeding the Grey Parrot; Records of Birds Bred in Captivity; The Parrot Ban . . .	195
The Greenfinch in Captivity, by Dr. E. HOPKINSON . . .	173		
Notes on a Voyage Home from Africa in the Winter, by J. C. SWAN . . .	177		

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NEW ZEALAND TOMTIT.

THE AVICULTURAL MAGAZINE

THE JOURNAL OF THE
AVICULTURAL SOCIETY

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JULY, 1935

THE NEW ZEALAND TOMTIT

(*Myiomoira toitoi*)

The bird represented in the accompanying plate is, in spite of its trivial name, in no way related to the true Titmice (Paridæ), but belongs to that large group of Australasian Flycatchers, which includes the lovely genus *Petroica*.

The photo has been lent by Mr. Porter, and the plate should properly have accompanied his article on the species in "Notes on New Zealand Birds" published in the MAGAZINE for January, 1934. The reason for including it now is that it seems to us a pity not to make use of so excellent and unusual a photograph, giving, as it does, an almost exact representation of the bird, the colour of its plumage being black and white. Moreover, the small white patches on each side of the beak are clearly shown, although normally they are hidden unless the bird is excited.

The species is confined to the North Island, but the closely allied *M. macrocephala macrocephala* is found in the South Island, while *M. m. dieffenbachii* and *M. m. marrineri* are confined respectively to the Chatham Islands and to the Auckland Islands.

There can be little doubt that a bird which in the wild state "becomes exceedingly familiar, very much like our own robin", would make a charming and intelligent addition to aviculture.

A. C.

NOTES ON BIRDS OF FIJI

By SYDNEY PORTER

(Continued from p. 139)

THE YELLOW-BREASTED SHRIKE OR THICKHEAD (*Pachycephala kandavensis*)

I only saw this lovely bird once, though I heard it many times. I was attracted to it by its flow of extremely melodious notes. These birds are hard to distinguish when in the trees, for their plumage harmonizes so well with the foliage in spite of their bright colouring.

PEROUSE'S FRUIT DOVE (*Ptilinopus perousei maricæ*)

This is one of the exquisite Doves which adorn the forests of Fiji. A more lovely creature cannot be imagined, but the full beauty of its plumage is seen by few except the so-called "sportsman"—usually an Englishman, who carries his traditional love of "sport" to the South Seas—who slaughters it, for this bird is exceptionally wary and difficult to approach, at least I found it so. It is found in small flocks in the forest; the flocks are composed of pairs, the brilliant male and his sombrely coloured spouse flying together.

They come out to feed on the berry-bearing trees very early in the mornings, and can be seen moving about in the trees with a rapidity which is very unPigeon-like. In fact all the Fruit Pigeons are exceedingly active during the period they are feeding. Afterwards they seem to get lethargic and remain motionless for hours. These birds are especially fond of the Perminto or "All-spice" berry. In an old and now disused plantation of these trees near Suva the birds were very abundant, but one could never get close enough to study their habits. The flight of these birds is exceedingly swift and totally unlike that of any other Pigeon. Locally it is known as the Painted Dove, but I am sure "Rainbow Dove" would be more appropriate, for no bird looks more as though it had been painted through human agency.

I heard from time to time of people who had some of the Fruit Doves in captivity, but I never succeeded in getting hold of any.

THE FLAME DOVE (*Chrysæna victor*)

I feel that I must make a mention of this very remarkable bird, even though I did not see it, for I am told that owing to collectors shooting so many birds it is now rare, which is to be greatly regretted, for it is one of the world's most remarkable birds. About the size of a small Turtle Dove, but much plumper in form, it is clothed with a raiment of hair-like feathers of the most dazzling flame orange, so bright in fact that the eyes are almost dazzled when looking at it. A gentleman in Suva, a keen naturalist and a painter of remarkable merit, showed me the painting of a young male in the transitionary stage, in which it was changing from the uniform silvery pea-green of the young bird to the glory of the adult; the bird had a ground colour of green, but was uniformly spotted with the brilliant flame orange, a most remarkable creature.

The flight of the male through the dark forest is said to be like "the passage of a rocket on a dark night".

The only record of this wonderful bird being kept in captivity is in 1875, when we are told in the *P.Z.S.*, 1875, p. 437: "Mr. Kleinsmidt, a gentleman in Laveka much addicted to natural history, has preserved one of these birds alive for more than a year, feeding it on wild berries fetched daily from the forest. In uttering its bark it opens its lower mandible wide and then closes it with a snap, jerking its head at the same moment. It is very fond of the sun, preening its feathers and 'shaking itself together'. If kept in the shade it mopes and sits with feathers all puffed out and looking wretched."

Layard, who lived in Fiji, says of this bird: "Those . . . who have shot the 'Cock of the Rock', can readily picture to themselves the 'flame' of the Orange Dove, as he pursues some rival through the green forest—the eye is fairly dazzled as the orange ball on golden wings turns and twists in the sunlight. Dull days do not suit him a bit, and he hides away and mopes, never uttering a sound; but with the bright sun he emerges from his retreat and 'clucks' to his green wife from many 'a cool retreat'." . . . "*C. victor* feeds on many sorts of small and large berries and fruits, swallowing them whole."

I tried hard to get hold of a pair of these birds, but was unsuccessful;

the only way to obtain them would be to get young ones from the nest and hand-rear them.

One gets no idea of the real beauty of the bird from skins, for the iridescent orange soon fades after death.

THE GOLDEN DOVE (*Chrysæna luteovirnes*)

Amongst the renowned Doves of Fiji this bird takes a high place and fortunately it is also one of the commonest. When handled in the skin "Golden Dove" seems rather a misnomer, for upon death the colour fades to pale greenish-golden yellow. But seen in life flashing through the forests it appears like a ball of golden light. Not only is it remarkable on account of its plumage, but also on account of its call. When I first came to Viti Levu I was greatly surprised to hear in the forests the deep bark of a seemingly large dog. A loud sonorous "Whoof, whoof!", to be followed by another bark a distance off. I thought at first that this must be a large native dog, for there are no wild dogs of any kind in the South Sea Islands; in fact I don't think there are any endemic mammals of any kind in Fiji. I learned soon afterwards that this was the call of the "Barking Dove", as it is known to Europeans in Fiji.

I often used to see many of these lovely birds on the edge of a native clearing just outside Suva; they could be seen at any time of the day feeding in the low berry-bearing trees.

The feathers of this bird are different from those of any other Dove and are glossy in texture and lanceolate in shape.

THE NUTMEG PIGEON (*Muscadivores latrans*)

This Pigeon, so called from its partiality for nutmegs, is greatly sought after by the natives, who shoot it and bring large bundles into Suva for sale. Unfortunately its number is now greatly decreased and the bird is extremely wary. I was never able to get within many hundreds of yards of the ones I saw, which were always perched on the limbs of dead trees on the look out for enemies. Often natives will take great bundles of these birds into the town and, owing to the high price they ask, are unable to sell them. They will keep the bodies for a day or two then throw them away, going into the forests for a fresh

supply. Most of the Pigeons are protected and the sale of the protected birds is prohibited, the natives getting over this handicap by plucking the birds of all their feathers before exposing them for sale; consequently only an expert can tell their species. So that it looks as though a few more years would see the extinction of this bird.

THE FIJIAN WHITE-THROATED PIGEON (*Janthænas vitiensis*)

This bird is known in Fiji as the "Chili Pigeon", owing to its feeding to a large extent on capsicums. It is one of the few so-called "game-birds" of Fiji and is greatly persecuted by the "Whites", who in the open season slaughter great numbers. Fortunately this Pigeon is supposed to retire into the almost inaccessible mountain forests in the interior of Viti Levu to breed, so during that part of the year it is safe from persecution; it has not decreased to the extent of the previously mentioned bird.

This is a large bird, somewhat resembling the English Wood-pigeon, but has a white band across the throat. I brought a pair of these birds away from Fiji with me, and later on about a dozen were sent from Fiji to New Zealand. I only brought one pair away with me as there only seemed to be one hen; this bird lacked the white throat. At first I thought this was a sign of immaturity, but since I brought the bird home it has bred several times but has never developed the white throat. I find these birds very hardy; mine stay out all the winter in any aviary with an unheated shelter. Unfortunately success has never crowned their efforts at breeding, something has always happened to the youngster—either it has been killed by other birds, taken by rats, or killed by an early frost. The parents seem as easy and anxious to breed as ordinary domestic Pigeons, and eggs are laid in all manner of places, often most unsatisfactory ones. Though very affectionate to each other, they are extremely pugnacious to other Pigeons, and it is impossible to keep another bird of the Pigeon species in their aviary.

STAIR'S GROUND PIGEON (*Gallicolumba stairi*)

This bird belongs to the group of White-fronted Ground Pigeons which is distributed over many of the Pacific Islands. I only saw this bird in Kandavu, where it lives amongst the thick undergrowth in the

forests. Unfortunately in the islands where the mongoose has been introduced it is nearly extinct. I was lucky in securing from a person in Suva an example of a very rare form from the Caroline Islands, known as the White-fronted Amethyst Ground Pigeon (*G. kubaryi*). This is a very beautiful but extremely spiteful bird. It has killed several of my other Pigeons, including ones nearly twice its own size. It also slew a mate which someone kindly gave me for it in New Zealand; this was the commoner White-fronted Ground Pigeon (*G. jobiensis*) from New Guinea and the surrounding islands. The male was in breeding condition and wanted to nest even in the crate coming over, and one morning on going my round of the cages on the boat I found the female practically torn to pieces and stripped of nearly every feather. The Caroline Island Pigeon is one of the most beautiful of the smaller Pigeons, having the forehead, throat, and upper breast snow white while the back and wings are lovely shining amethyst purple; the nape is pale grey and the rest of the plumage slatey black.

Its habits in a wild state, I suppose, would not differ from the Fijian species, which seems, as far as I could see, to live a solitary existence in the dense undergrowth, only rising when one almost treads on it. It soon settles down into the undergrowth again.

THE FIJIAN RAIL (*Hypotaenidia philippinensis sethsmithi*)

In the swamps, often around the villages, on Kandavu Island I found Seth-Smith's Rail abundant. It is a sub-species of the well-known Banded or Philippinean Rail, which is distributed all over the islands of the Pacific, Australia, and New Zealand in varying sub-species. On Viti Levu, in common with all other ground birds, this species has been practically exterminated by the mongoose. It is a very shy and retiring species and as soon as it sees an intruder it quickly disappears into the thick vegetation.

I was fortunate in getting hold of a pair of these birds when in Viti Levu, which I brought home with me. They stood the journey well and settled down in my aviaries. Unfortunately soon after my arrival home rats made their appearance in my aviaries. They soon took one of these and I straightway moved the other birds into another aviary; the rats followed and took another. I had five birds, two of the species

from Fiji and three of an allied kind (*H. p. assimilis*). No matter into what aviary I put them the wretched rats followed and were not content until they had all the birds. I think they must have had a very strong scent because they did not molest other species of waterfowl.

THE FIJIAN SCARLET SUNBIRD (*Myzomela jugularis*)

This very lovely Sunbird is one of the tiniest birds found on the islands, and is common everywhere. It is seen around the town of Suva, where it frequents the garden and also the native plantations. It is not nearly as conspicuous as the African Sunbirds, and in its demeanour rather resembles a tiny creeper.

I have watched dozens of them as they seemed to work along with the Zosterops. They are very tame and allow a close approach. The food seems to consist more of tiny insects than nectar.

THE CATERPILLAR-EATER (*Lalage woodi* ?)

This handsome bird is one of the commonest of the Fijian species, not counting, of course, the imported birds. It is a quiet and unassuming bird, moving actively but silently through the foliage searching for the insects which constitute its sole food. It is one of the few birds which are continually active in the intense midday heat.

It is very common in and around Suva, where it is to be seen in nearly all the gardens. The Caterpillar-eaters (Campephagidæ), or Cuckoo-Shrikes as they are sometimes called, are distributed all over the tropical countries in the Old World and are especially common on the islands of the Pacific.

THE FIJIAN KINGFISHER (*Halcyon sacra vitiensis*)

The Fijian Kingfisher is one of the well-known Sacred Kingfishers which are found all over the islands of the South Seas, Australia, and New Zealand. None of the various species differ very much from each other except in the colouring of the breast. The bird in question is one of the brightest coloured—brilliant blue on the wings, back, and tail, the breast creamy white with faint black markings; there is a broad black stripe from the beak to the back of the head. The bird also has a black cap on the head.

He is a very common bird, and his habitat is not necessarily near water, for he is not a fish-feeder but subsists mainly on insects, small crabs, centipedes, etc.

A friend once described the Fijian Kingfisher as the bird which talked with its tail! To those who know the bird this is a very apt description, for no bird I know makes so much use of his caudal appendage. When sitting still his tail is continuously jerked about at all angles. He is a tame and confiding bird, and is often to be seen in the gardens of Suva, but his favourite haunt is in the bush bordering the mangrove swamps, where no doubt he feeds to a large extent on the tiny crabs, which are so plentiful, and the strange little fish, *Periophthalmus barbarus*, which climb out of the water and take an airing on the roots of the mangrove trees. On Kandavu Island I found the Kingfisher very common.

THE FIJIAN FANTAIL-FLYCATCHER (*Haplornis lessoni*)

A charming little sprite, clad in pale grey and white, and often met with in the thick bush bordering the native clearings on Kandavu Island. The bird is nothing like as familiar as his New Zealand namesake, and I don't think he belongs to the same family as that bird. Its actions are very Warbler-like as it hunts through the dense vegetation for the small insects upon which it feeds. He is inquisitive and will come out of the undergrowth to get a good look at one, but he is soon off again and never stays round like the New Zealand Fantail.

It is not a common bird and I did not observe it many times whilst in Fiji.

THE KANDAVU HONEY-EATER (*Meliphaga provocator*)

This strange bird is very characteristic of Kandavu. It is the first bird one hears on entering the forest, and its loud melodious notes can be heard from a long distance. I usually saw the birds in pairs in the forests and mangroves bordering the seashore. In most tropical countries the forest, when it has been untouched by man, comes right down to the water's edge, but in Fiji the forest seems to run right into the sea. It is a very strange experience when walking in the forest to come suddenly right on to the sea itself. One often sees forest giants

standing in the salt water, their roots being quite covered at high tide, though, of course, these do not go far out, the forest usually trailing off into the mangrove swamps which often go quite a distance out to sea. It is here that the Kandavu Honey-eater seems to be most plentiful, and it is heard long before it is seen. It is a shy and wary bird, and it is only after patient watching that one can get a glimpse of these peculiar looking creatures.

(To be continued)

BREEDING OF COURIER WATER-TYRANT

(*Fluvicola climazura climazura*)

By J. DELACOUR

In most parts of South America one sees along streams and ditches and even in towns and gardens some very pretty white, grey, and black birds, which remind one of our Wagtails. But their tails are shorter, their bills slightly flatter, and their actions quite different, although they have the same way of running prettily on the soil.

They are Water-Tyrants of the genus *Fluvicola*. Many years ago I saw many of the white-shouldered species (*Fluvicola pica*) in Guiana and in Venezuela, and I was very much struck with their attractive appearance. But I was told that they could not live in captivity. Fortunately M. C. Cordier, of Pernambuco, has found the way of keeping most Brazilian birds alive in his aviaries, and afterwards to send them to us.

I got my first Water-Tyrants (*F. climazura*) more than two years ago. They arrived, it is true, in poor condition, and only two survived. Let out in one of my tropical houses, they soon settled down and enjoyed immensely the stones and water-lilies of the pond. They proved tame and harmless to other birds. But they probably were of the same sex, as after over a year no attempt at breeding took place. They are purely insectivorous birds and take readily to the usual mixture, a little raw meat and a few meal-worms.

Last summer I received two more specimens which, after they sufficiently recovered, were let out with the first two. Things did not

go smoothly: fights took place and after some time two were killed. The two remaining birds were evidently a pair.

Early last winter they started carrying moss and small twigs and soon built a purse-shaped nest, rather loosely made, in a creeper at a height of 8 feet overhanging the pond. I do not know how many eggs were laid, as I did not wish to disturb the birds, but after about twelve days the nest was found to be empty and one broken egg, containing a well-developed chick, was found at some distance on the soil.

Soon after another nest was built, in another creeper 2 yards away from the first one and higher up still. Eggs were laid again and, on 25th February, two young Tyrants left the nest. They are exactly like the parents but smaller and with a shorter tail. The eggs are greyish olive, much marked and speckled with darker grey and brown. One chick was weak and died after three days, being found in the pond. The other one developed normally, and it is now indistinguishable from the parents. The young were reared quite easily on the parents' diet—insectile mixture, raw meat, and a few meal-worms.

A third clutch was laid in the same nest in May, and on the 26th three strong young ones came out. They are now in perfect health and although they had a new brood the parents have never so far molested their first baby. It is the more remarkable that they try to attack savagely a newly imported specimen in a neighbouring aviary.

As Mr. de Quincey tells me, these Water-Tyrants are quite hardy, and his pair wintered safely out of doors this year. They also bred but the young died soon after they came out of the nest. There is no doubt that tropical birds have a much better chance to rear their offspring when always kept at a favourable and even temperature, as is the case in my greenhouses. Three years ago a pair of Shamans reared two full broods without losses in one of the compartments; and one knows that, although they nest freely, the young are not too easy to breed in an outdoor aviary. Also it may interest our readers to hear that my Hooded Pittas have young again. The breeding pair is composed of the old hen and one of her sons bred last year.

To come back to our Water-Tyrants. I shall say that they are most attractive birds in colour, shape, and behaviour. They look very different and much nicer than most members of their family. Always

active, tame, and amusing in their way of walking on the water-lily leaves or running on the rocks, they often display their wings and tails and utter a loud but not unpleasant call. They have no real song. The size of a Robin, they are high on the legs, with a slender bill and moderate tail and wings. Their plumage is white and rather fluffy (they are often called "cotton birds"). A stripe through the eye at the back is cinerious, slightly brownish; tail black, tipped with white; bill and feet black. The species is common in Eastern Brazil, even in towns.

THE GREENFINCH IN CAPTIVITY

By Dr. E. HOPKINSON

Although of no great interest as a cage-bird apart from the ease with which it can be kept and even bred under suitable circumstances, the Greenfinch would seem from the records to be the chief hope of those who hope to provide a supply of aviary- or cage-bred British birds to take the place of those whose capture is now illegal. I am afraid, however, that it will be found that what artificially reared birds are obtained will not turn out to have the stamina or long life of wild-bred ones and that breeding to several generations will not be the easy matter some seem to expect. However, in everything optimism is a good thing, and this is a suitable opportunity to collect in one place the records of what has been done in the way of keeping and breeding these birds.

The COMMON GREENFINCH (*Chloris chloris* (Linn.)) has been a well-known cage-bird from the earliest times, but not much valued except as a possible father of mules. There are many records of their having been bred both in cage and aviary; among British ones are *A.M.*, i, 124, and *B.N.*, 1913, 43, while for abroad Neunzig (*Einh.*, p. 363) says that they are easily bred and gives an account of their being reared in numbers by Professor Liebe in Germany. He appears to have given most of those he reared their liberty, and this raises the question of what can be done except this, if one does succeed in rearing generations of unsaleable birds. The advertisements which appear nowadays of

close-ringed "aviary-bred" Greenfinches and other birds are, of course, merely a result of the Wild Bird Act of 1934 and of no value as records, and many of the older records are also too vague; for instance, Page in *B.N.*, viii, 202, says: "In the past . . . I have bred the Greenfinch, Bullfinch and Goldfinch freely, and also reared single broods of the Siskin and Twite," but how many of these and other similar records are worth much? In how many of the cases did the young live to moult? In how many did they live for a year or more, and was even a second generation reached in a single case?

The Algerian race (*C. chloris aurantiiventris* (Cab.)) has been at the Zoo, and is no doubt kept occasionally in its own country; it is a larger and brighter edition of our bird. The Chinese Greenfinch (*C. c. sinica* (Linn.)), with a larger yellow wing-patch than the European race, is kept in China, has been at the Zoo, and a pair was exhibited at the Crystal Palace about 1892. Shore Bailly bred the race in 1915, two young birds being hatched on 30th June, but both were dead by November. Neunzig also records that in Prince Coburg's collection, thirty or more years ago, a pair got as far as eggs (*Einh.*, 361).

The Japanese race (*C. c. kawarhibi* (Temm.)) is no doubt kept in its own country, and there are two records of breeding in Europe, with the male European Greenfinch and hybrids with the male Goldfinch. It is very like the European bird, but duller and slightly smaller.

The following are the hybrid records I know of:—

GREENFINCH × JAPANESE GREENFINCH.

Recorded by Vale as having been bred and as having produced fertile offspring. The cross is of course not a true hybrid, being merely interracial.

GREENFINCH × SIKHIM SISKIN (*Spinus tibetanus* Hume).

There is unfortunately a good deal of confusion in the account of this and the next species, both as to true and cross-breeding.

Shore Bailly in *B.N.*, 1914, 216, 245, using the name *tibetanus*, records the rearing of one hybrid; for this he was awarded the F.B.C. Medal (*B.N.*, Sept., inset). Writing later (*A.M.*, 1919, 92), the breeder says that he finds he was mistaken and that the name of the females should have been *spinoides*, not *tibetanus*; he adds that about the

same date Teschemaker also bred some "Greenfinch \times Himalayan Siskin hybrids" which were different to his. Shore Baily's hybrid was exhibited at the L.C.B.A. Show, 1914, and figured in *Bird Notes* (1915, p. 11). The figure suggests in shape the more Greenfinch-like *spinoides* rather than *tibetanus*. More evidence and more records are needed. On what we have at present to go on, I take it that the *spinoides* hybrid has certainly been bred, and perhaps the *tibetanus* ones as well, for Teschemaker's hybrids may well have been this, as he recorded the breeding of *Spinus tibetanus* about that time.

GREENFINCH \times HIMALAYAN SISKIN (*Hypacanthis spinoides* (Vig.)).

See above.

GREENFINCH \times $\frac{\text{GREENFINCH}}{\text{HIMAL. SISKIN}}$ hybrid.

Bred by Bright in 1920. See *B.N.*, 1920, 178.

$\frac{\text{GREENFINCH}}{\text{HIMALAYAN SISKIN}}$ hybrid \times GREENFINCH.

Bright records the rearing of two young hybrids in 1917 (*B.N.*, 1917, 195). He gives the cross the other way round, but Page records it as above. Which was correct?

CHINESE GREENFINCH \times HIMALAYAN SISKIN (*H. spinoides*).

Shore Baily in *B.N.*, 1919, reports the rearing of six young hybrids of this cross. He evidently had males of both the European and Chinese Greenfinches (see above under No. 2).

CHINESE GREENFINCH \times GOLDFINCH.

Were bred at the Zoo, fertile hybrids which crossed again with the European Goldfinch, *teste* A. G. Butler, i, 138. But I believe that the hybrids were really the other way round, GOLDFINCH \times CHINESE GREENFINCH.

The above hybrid \times GOLDFINCH, *teste* Butler; again I think it was vice versa.

GREENFINCH \times CHAFFINCH.

Recorded by Page, but I think that his statement was based on *B.N.*, 1912, 215, where the cross the reverse way is recorded. I have, however, a letter from the late Mr. G. Crabb, in which he tells me that he had (in 1919) a specimen of this cross in his collection of skins, which

he believed was bred by Miss Reeves, who bred the Brambling-Chaffinch hybrids.

GREENFINCH \times MEXICAN ROSEFINCH (*Carpodacus mexicanus* (Müller)).

Bred by Wade in 1914, a first for the United Kingdom, and I do not think it has been bred since. See *B.N.*, 1915, Jan. inset., where the name used is "Ruddy Finch".

GREENFINCH \times SCARLET ROSEFINCH (*C. erythrinus* (Pallas)).

This cross is on record, but I think an error, for the real cross was the other way (Tomlinson in 1916), see *B.N.*, 1916, 206, 256; 1917, 123. There may have been doubt about which species of Rosefinch was the father, but it seems certain that the Greenfinch was the female parent.

GREENFINCH \times BULLFINCH.

A not uncommon show bird, at any rate in the past, when one used to expect to see an example or two at the big shows. Vale and Page mention the cross, Neunzig (*Einh.*, 335) says it has been bred abroad, and Allen Silver includes it in the list of hybrids which have certainly been obtained, which he gave in *A.M.*, 1911, 351.

GREENFINCH \times CANARY.

Commonly bred and often to be seen at shows.

Hybrids in which the Greenfinch was the female parent have also been recorded as follows:—

With *males* of the Chaffinch, Goldfinch, Siskin, Himalayan Siskin, H. Siskin \times Greenfinch hybrid, Twite, Linnet, Lesser Redpoll, Scarlet and Mexican Rosefinches. The female Japanese Greenfinch has also reared young to a male Goldfinch.

There the records are for what they are worth. I personally am satisfied with most, but should welcome further proofs and new records. It may be as well to explain the abbreviations used.

A.M., of course = the AVICULTURAL MAGAZINE.

B.N. is *Bird Notes*, the journal of the Foreign Bird Club, 1903 to 1924.

Einh. stands for *Einheimische Stubenvögel* (1913), the volume dealing with European Birds of Neunzig's edition of Russ, which is certainly the most authoritative work we have on such birds in confinement.

NOTES ON A VOYAGE HOME FROM AFRICA IN THE WINTER

By J. C. SWAN

I was told by my friends that I should never get my birds home in the winter, and when on board ship in the Indian Ocean I read in the *News* that the maximum temperature in London was 36 degrees on certain days in November, I began to think my friends might be correct. However, I could not choose the time of my arrival in England, so on a broiling hot day, in Dar-es-Salaam, the birds were “shipped”. Yes! “shipped” is the correct term, for those who have done it once know that it is as easy to ship as many tons of Sisal as it is to get on board a similar number of boxes containing “Live Birds”. To the inexperienced the procedure of shipping a “cargo” of birds may be interesting, so I will describe it. First the “cargo” must be measured, weighed, the freight calculated, and paid, and the freight receipt produced to the steamship company’s agents at the time the crates are finally handed over for loading on to the steamer. These duties, one would imagine, would all be performed at the same office—perhaps by the same clerk, in the same manner as a parcel is consigned by the railway, but not so with steamship companies—these separate duties which comprise the routine of shipping cargo must be performed by separate companies. Usually there is a landing and shipping company to do the measuring, etc., etc., and a wharfage company to do the actual “shipping” of the goods. These companies appear invariably to have their offices at opposite ends of the town, the reason for which must be either to prevent one department getting in the way of the other and perhaps, by accident, doing some portion of the work belonging to one of the other departments, or it may be to impress shippers in general with the importance of each of these respective departments and so attempt to justify the charges made. Well, after innumerable journeys to and fro, with the birds, “freight” was paid and the birds handed over to the wharfage company for “shipping” and troubles, I imagined, were at an end. Later on I realized that they had only just begun, for when the birds were put aboard the tug to be taken out to the steamer lying at anchorage in the harbour, and I followed, I was

not allowed to accompany the birds, as the wharfage company's tug was reserved for "cargo" only. I was obliged to hurry to another jetty about half a mile down the quay, hire a motor-boat, and endeavour to reach that ship before the tug which, to give it its due, had already started on a special journey out to the ship in the harbour with my ten boxes of birds in order that they should not be left lying about in the sun. As the birds had been packed in ten ladies' hat-boxes of the thinnest plywood for easy handling, they could not have weighed as many pounds altogether!

Needless to say, with such a load the tug arrived at the ship first and the birds had all been off-loaded before I reached the vessel I was travelling by. There may be good business reasons for this procedure, for most shipping companies prefer to do their loading and unloading in privacy and not under the eyes of owners. On arrival on board I found that the birds had been consigned to the care of the butcher. I had already advised this good fellow that the consignment was coming, so I eagerly sought him out and found that he had my ten boxes neatly arranged on the top shelf of his butcher's shop—a room about 10 by 8 feet, where all the meat for the ship's 400 souls was cut up and distributed. There was one port-hole to the butcher's "shop" and an electric light bulb at about the level of the top shelf supplied all the light that reached this compartment. The temperature, I should think, would be well over 100 degrees. My heart sank as I conjectured how the Sunbirds and rare Finches would survive the journey from Dar-es-Salaam round the Cape to Southampton in these surroundings, for such is the only accommodation that some of our largest vessels have for livestock. My spirits rose when I was told that the captain of the ship was an aviculturist, for it was quite obvious the birds could not stay where they were, but there did not appear to be any other place to put them. In a few minutes the "skipper" himself appeared, and I was delighted to hear him give orders for a disused hospital cabin astern to be cleared of bedding and the cages placed on the bunks. I was given full access to the hospital deck and full use of this cabin. Needless to say, that skipper and myself became the best of friends.

I do not intend to describe in great detail the birds in the collection, which was neither representative of the bird life of Tanganyika nor

of any great importance. There were three specimens of the Usambara Double-collared Sunbird (*Cinnyaris mediocris usambarica*)—one a particularly fine specimen, the velvet-like gloss on its feathers by comparison with its condition when caught paying a high tribute to the Horlick's and honey diet; another had moulted while in Africa, and the wing feathers had turned white in the first moult, which, by the way, disposes of the theory that loss of pigmentation is due to absence of sun's rays. These Sunbirds were caught while on holiday in the Usambara Mountains, by baiting the flowers they are partial to with a "limed" stick, placed so as to provide a natural perch, against the most likely tuft or spray which the bird might select. The sticks must be watched, and as soon as the bird alights he is removed instantly and his feet washed with paraffin to remove all traces of lime.

After capture the bird is kept in a darkened cage for four days, by which time he will have accustomed himself to the Horlick's diet, on which he must be hand-fed until he will feed himself.

The other Sunbirds comprised a Kirks (*Chalcomitra amethystina kirki*), the first importation, I believe, into England, a Scarlet-chested Sunbird (*Chalcomitra senegalensis inestimata*), and a Zambezi Collared Sunbird (*Anthreptes collaris zambeziana*)—a beautiful little bird with golden green and coppery markings on back and wing coverts. There was an incident regarding this bird which might be worth mentioning. I did not catch it myself but secured it from a native, and arranged to call and collect it on my return home from business later in the afternoon. When I called for the bird at about 6 p.m. I found it on the bottom of the cage, lying on its side, but there were just signs of movement although its eyes were closed and its slender beak drooped on to its chest when picked up. I noticed immediately that the bird was without food (honey and water on which the natives feed them), and it turned out that the native had forgot that afternoon when feeding his birds to replace the food-pot. I put the bird in my handkerchief (it could not stand, let alone fly) and rushed home with it, after having put a few drops of the honey mixture into its beak.

I commenced hand-feeding it on a strong mixture of Horlick's and honey, a few drops at intervals, and kept the bird wrapped in cotton-

wool for warmth and support. I hand-fed the bird all night, resetting an alarm clock with each successive feed every hour. It is almost unbelievable, but by morning the bird could stand on its perch, and by midday was hopping about as sprightly as on the day before—proving that where Sunbirds are concerned the Horlick's treatment will pull them back from the grave.

Among seed-eaters were two pairs of Jamieson's and six pairs of Peters' Spotted Firefinches, six Tanganyika Melba Finches, Violet-ear and Black-cheek Waxbills, besides a number of the Lesser St. Helena Waxbills.

The birds continued in the pink of condition until a day before our arrival at Durban, when high seas sprang up, the thermometer fell rapidly, and the ship rolled in all directions. The birds, like all the passengers, looked distinctly off colour but bore the weather better than many of the latter.

At this stage a small electric toaster with which I had provided myself proved invaluable for, plugged into the ship's lighting circuit, it was just sufficient to keep the temperature in the hospital cabin up to slightly over 70 degrees. Also live ants' nests—clods of hard earth which when broken up reveal the young ants and larvæ—were greatly enjoyed by the Peters' and Violet-ears, and were, I am sure, the means of saving these birds during the rough passage into Durban.

By the way, I found that Peters' Spotted Firefinches prefer cooked meal-worms to the live worm, which they frequently left after just biting the heads off. They are not easy birds to keep in robust condition, unless they can be fed on some form of insectivorous food which they like. Live ants in the nest they relish, and will fight over a dishful.

From Durban to Cape Town the weather was milder but getting cooler, and my portable electric toaster was doing duty night and day. After the Cape the temperature rose until we crossed the Equator a second time, and was warm all the way to the Canary Islands, thereafter gradually getting colder, but by this time the birds did not appear to care what the temperature was, for they were all in splendid condition.

The ship berthed at Southampton at 8 p.m. one evening in November and troubles again commenced over the cargo of birds—this time over the unloading.

By a mistake in the bill of lading—which was not noticed until after my departure from Africa, for abroad bills of lading are never issued until after a vessel has left port—the birds, comprising the “cargo”, had been consigned to London. It was first argued that cargo for London could not be landed at Southampton, and that if the steamer did land the “cargo” the Customs would not clear cargo at night. Actually, by this time the cases had been taken off the ship by a well-tipped crew and were reposing with the rest of my personal luggage in the Customs’ shed, but I was too interested in the argument that the Customs’ officials were having with the steamer’s agent over clearing cargo at night and landing same at ports other than to which shipped to interrupt. When difficulties appeared to be insuperable I remarked that all that appeared necessary was to assess any duty on the birds along with the duty on my personal belongings (if any) and as far as the steamship company was concerned all they required was a receipt for the cargo—no matter what the port of discharge might be. Birds are not dutiable, but a certificate of origin should accompany them if they are to be exempt. My birds had accompanied me and I had a passport, so I had not prepared a certificate of origin for the birds, as I had taken for granted that it would be assumed that the birds had come from the same port as I had embarked myself. But one travels and learns. A deposit for the duty, returnable on production of the certificate of origin, which, by the way, is a declaration on a specified form by the shipper of merchandise (myself in this case), was at last accepted and the special boat train which by this time had waited twenty minutes for me (the last passenger) and my luggage got away and the most dreaded part of the journey commenced.

Shortly after midnight I unpacked the cases in front of a warm fire, to find to my great surprise all birds on their perches and looking none the worse for the journey. Actually the few casualties occurred well after my arrival in England, and were to a great extent my own fault through allowing the housemaid to make up the fire in the bird-room late at night—result, loss of two Sunbirds through fright and concussion. Never rely upon a coal fire to maintain an even temperature—an oil-stove will do it admirably, that is for those who do not indulge in luxuries such as thermostatically controlled heating.

BREEDING THE DUFRESNE WAXBILL

By H. S. SEWELL

Having successfully bred the Dufresne Waxbill, *Coccopygia dufresnii* (hab. South Africa) just recently, I will give a few notes on this species which I trust will be of interest.

Securing two pairs of these delightful little Waxbills a little over twelve months ago, I released them in a selected breeding aviary, when one pair soon started to build ; these were my rarest Waxbills at that time and I might say my optimism ran riot. However, my hopes were soon settled when it turned out to be only a sleeping nest, as did several others which they built at different times last season : they proved to be energetic nest-builders but that was all. I had the misfortune of losing one of the hens, so this left me with only one true pair. It was about this time, I believe, that restrictions on South African birds were enforced, so I was unable to procure any more.

During the breeding season this year I erected a new breeding aviary and in one compartment established a nice swath of grass ; in this house I placed the pair of Dufresne's together with some Fire Finches. I had not long to wait before the little Waxbills were building : they selected a small nest-box high up in their sleeping quarters and all went well until their approximate hatching date. This was in the latter part of February, when a good old Australian heat wave set in, the mercury soaring up to somewhere in the vicinity of 107 in the shade. Knowing something was wrong at this stage I inspected the nest and found one chick just hatched, but dead, and three eggs, the young dead therein, which was very disappointing but after all not surprising under the circumstances. In a little over a week the cock started building again, choosing the same nesting site. A strong oval-shaped nest was constructed and lined with feathers ; the first of four pure white eggs was laid on 17th March, the hatching period occupying fourteen days. Twenty-two days later, when feeding up, I apparently disturbed the clutch, when four young birds flew from the nest. If I said fell from the nest it would be nearer the mark ; apparently they left home two days too soon. I think their parents held the same view, as they literally flew around me like a pack of mosquitoes. It

was most interesting to watch the old birds enticing their youngsters back to their elevated nest. On the opposite wall were a few gum branches and extending from the top of these a perch reached to their nest: using the branches as a ladder, they gradually coaxed their family up a few inches at a time and eventually got them home; two or three days later the young birds were quite strong on the wing. The colouring of the young Dufresne's is similar to an adult hen: head and nape leaden grey, eyes brownish black, beak all black, but the lower mandible changes to crimson approximately four weeks after leaving the nest; two phosphorescent spots each side at the base of the beak, back and wing coverts olive green, primaries and secondaries grey edged with green, upper tail coverts green tinged with red, rump red, tail black; throat, breast, and under parts very light grey; legs greyish black.

Inside of twelve days the young were independent, and the cock bird in that time had built again; incidentally this nest was spoilt by the young birds, who constantly disturbed the hen whilst sitting. At that time I was dubious about separating the youngsters, not knowing they were independent.

The food supply consisted of seeding grasses, soaked seed, and a little live food, together with the usual dry seeds.

I think the Dufresne's must be the most affectionate of the Waxbills, especially the cock bird, who has the untiring habit of preening the head and nape feathers of his lawful spouse until she becomes practically featherless on those regions, displaying a most comical appearance. Although my previous pair had a large flight aviary, the hen was soon in the same condition.

I believe this species was bred for the first time in England or Europe some few months ago; it is therefore mainly my idea in recording the above achievement to show that members over this side of the world are also actively engaged in breeding the rarer Waxbills and Finches.

MR. SETH-SMITH'S CONTRIBUTIONS TO THE MAGAZINE

By DR. E. HOPKINSON

Mr. Seth-Smith's good work for the Magazine during his long period of editorship and still longer as member deserves more than passing notice, and we think that this break in his labours may well be marked by the publication of the following list of his contributions to our pages.

It offers a tribute to his industry and shows to all of us how much we owe to him, the expert (as the record helps to show) on all that pertains to Aviculture, and we feel sure that this "we" is more than personal and includes the whole Society.

1896

The Pectoral Rail, 103.

The *Anatidæ*.

*Colour of the bill of the Australian Green-winged Dove, 64.

1897

Insectivorous birds at the Crystal Palace, 91.

*What is a British Bird ?, 55 ; *Barbary Doves, etc., 135 ; *Barraband's Parrakeet, 209.

1898

Nomenclature of Foreign Doves, 40, 50.

The Bronze-winged Pigeon, 41.

Pheasants, 125, 142.

Magpies, 151.

Nesting of the Chinese Quail, 200.

1899

British Birds at the Crystal Palace Show, 8, 87.

Crossbills, 24.

Nesting of the Diamond Dove, 35.

The Licensing of Bird-catchers, 98.

Photographing Birds, 110.

The American Siskin, 125.

Food for Waterfowl, 136.

Lord Derby's Parrakeet, 144.

1900

Breeding Results for 1899, 1.

Balham Show, 29.

Sacred Kingfisher, 64, 117.

Palace Show, 105.

Black-headed Buntings at the Zoo, 137 [*Report of breeding unfounded*].
Odd Notes on my Birds, 201.
Proposal to extend the Scope of the Magazine, 206, 235.
Long-tailed Grassfinch, 257.

1901

Ornamental Waterfowl, 83.
Palace Bird Show, 96.
The Cape Sparrow, 165, 215.

1902

Takes on the Editorship, 9.
The Crystal Palace Bird Show, 28.
*The Passenger Pigeon, 33.
The Illustrations, 54.
The Parrot-Finch, 59.
*Aviary at Forest Lodge, Binfield, 77.
*Long-tailed Partridges, 80.
The Crystal Palace Bird Show, 92.
*Partial Albinism in a Blackbird, 97.
*Crowned Pigeons, 99.
*Chinese Quails, 99.
*Identification of Waxbill, 148.
The Blue Mountain or Swainson's Lorikeet, 169, 207, 239.
*Pennant's Parrakeet with abnormal plumage, 177.
The Burrowing Owl, 193.
*Breeding Parrakeets, 209.
Brown's Parrakeet, 211.
*Young Birds feeding young of the same Brood, 234.
*The Brainfever Bird, 269.
The White-crowned Pigeon, 287.
*Improvements in the Magazine, 304.

1903

*The Secretary and the Society's Medal, 42.
*The new Medal Rule, 81, 116.
Bird Notes from the Zoological Gardens, 109, 144, 183, 215.
*The Hooded Siskin, 115.
Editorial, 119.
Some Notes from the Crystal Palace Bird Show, 178.
*The Plumed Ground-Dove, 248.
*Passerine Parrakeets, etc., 281. *Nesting, 338.
*Nightingale off South Africa, 283.
*The Himalayan Blue Pie ; the Indian Roller, 284.
A Fine Collection of Parrakeets [*Fasey's*], 299.
On the Breeding in Captivity of *Turnix tanki*, 317.
*Yellow Sparrows, 335.

- *The Red-mantled Parrakeet, 336.
- *Flint and Shell-grit for Birds, 341.
- *Breeding the Many-coloured Parrakeet, 342.
- The Racket-tailed Parrakeet, 345, 480.

1904

- Rare Foreign Birds, 57 ; Rare Foreign Birds at the Crystal Palace, 69 ; Foreign Birds at the December Bird Show at the Crystal Palace, 102.
- The White-throated Thickhead, 61.
- *The Influence of Diet on Avian Death-rate, 80.
- *The Zoological Gardens, 86.
- Bird Notes from the Zoological Gardens, 132, 145, 170, 201, 223, 250, 275, 301, 327, 365.
- The Martineta Tinamou breeding in Captivity ; Polyandry in Birds, 104.
- The Pectoral Finch, 130.
- Stray Notes, 168, 299.
- *The Society's Magazine, 177 ; *The Management of the Avicultural Society, 367.
- *White-eared Conures Nesting, 175.
- *Passerine Parrakeets, etc., 205.
- *Identification of Lorikeet, 206.
- Notes on the Habits of the Brush Bronzewing Pigeon, 211, 263.
- *The Plumed Ground Dove, 231.
- Weber's Lorikeet, 246.
- *Red-faced Lovebirds, 254.
- *Alexandra and Bourke's Parrakeets, 256.
- Nesting of the Scaly Dove, 278.
- *Breeding Budgerigars, 281.
- On the Breeding in Captivity of the Tataupe Tinamou, 285.
- *The Many-coloured Parrakeet, 304.
- Some Notes on the Painted Quails, 311.
- Note on Gray's Bare-throated Francolin, 327.
- *The Diamond Dove, 332, 370.
- *The Indian Green-winged Dove, 333.
- Further Notes on the Tataupe Tinamou, 362.
- *The Great-billed Parrakeet (Note), 369.

1905

- Bird Notes from the Zoological Gardens, 42, 206, 228, 255, 374 ;
- Mantell's Apteryx at the Zoo, 314.
- *The Management of the Avicultural Society, 49, 52.
- *The Black-backed Tanager, 83.
- The White-fronted Ground-Dove, 87.

- Peters' Spotted Firefinch, 119.
- The Crystal Palace Bird Show, 141.
- *The Food of Parrots, 144.
- The Yellow-rumped Finch, 53, 215.
- The Black Lory, 148.
- *The Rain Quail, 234.
- **Bathilda ruficauda*, 235.
- *The Yellow-headed Gouldian Finch, 237.
- *The Musky Lorikeet, 256.
- The Kagu in Captivity, 280.
- The Ornithological Congress, 283.
- On the Breeding of *Turnix varia*, 295.
- *An Uncommon Parrot (*Geoffroyus cyanicollis*), 319.
- *The *Brotoperys* Parrakeet, 320.
- The Breeding of Song-Sparrows, 331.
- The Breeding of the Australian Swamp-Quail, 363.

1906

- The Common-sense of Bird Protection, 34.
- *Notes on Parrot-Finches, 77.
- *Aviaries for Parrakeets, 79.
- *Diamond Doves, 82.
- Humming Bird at the Zoological Gardens, 109.
- The Red-mantled Parrakeet, 132.
- *Instinct or Imitation ?, 154.
- *The colour of young Pennant Parrakeets, 157.
- New Aviary at the Dublin Zoo, 163.
- The American Bob-White, 164.
- The Quail-Finch, 170.
- The Crystal Palace Bird Show, 172, 210.
- Stray Notes, 174, 198, 239, 268.
- *Aviculture and Science, 216.
- *The Vernacular Names of Birds, 216.
- Bird Notes from the Zoo, 265, 285, 315 ; *Rare Birds at the Zoo, 319.
- The Giza Zoo, 286.
- The Grouse and Wild Turkeys of America, 267.
- The Green-winged Pigeons of the genus *Chalcophaps*, 277.
- *Breeding of the Harlequin Quail, 294.
- The late Mr. August F. Wiener, 314.
- *Foreign Birds for London Parks, 318, 343, 359.
- *The Nesting of Quails, 319.
- The Breeding of the Yellowish Finch, 340.
- *The Swift Lorikeet, 343.
- *Nesting of Silver-eared Mesias, 364.
- *Hybrid Long-tailed and Masked Grassfinch, 364.

1907

- Some Notes on the Quails of the genus *Coturnix*, 23.
 Queen Alexandra's Parrakeet, 46.
 *Foreign Birds for London Parks, 48, 49.
 *The Dove Acclimatization Experiment, 137, 245.
 Acclimatization of Foreign Doves, 215.
 Notes on the Plumed Doves, 51.
 Stray Notes, 76, 151, 216.
 *Domestication of the Rhea, 129.
 *Propagating Mealworms, 137.
 Foreign Birds at the Crystal Palace, 149.
 Foreign Birds at Benham Park, 230.
 The New Bird House at the Zoo, 205.
 Arrival of Rare Foreign Birds, 242 [*Mr. Goodfellow's*].
 Humming Birds at the Zoo, 244.
 The Buff Laughing Kingfisher, 172.
 The Yellow-rumped Finch and its Relationship to the Chestnut-breasted Finch, 195.
 The Breeding of Lorikeets in Captivity, 209.
 The Kakapo or Owl Parrot, 234.
 *Tinamous, 250 ; *Polygamous and Monogamous Birds, 282.
 The Kagu, 257.
 The Partridge Pigeons of Australia, 292.
 On rearing Hemipodes by hand from the egg, 303.

1908

- Stray Notes, 43 ; Avicultural Notes for the past Year, 69.
 British Birds in New Zealand, 71.
 *Old Books with New Names, 77.
 *Messrs. Payne and Wallace's Collection, 186.
 Notes on my Visit to Australia, 287, 309.
 Birds of Paradise at the Zoo, 292.
 *The Uses of Gentles as Food for Birds, 296.
 *Curassows breeding at the Zoo, 348.

1909

- Aviculture at the Zoo, 251.
 Valedictory Note as Editor, 224.
 Notes on my Visit to Australia, 45, 73, 133, 161, 209, 256.
 Foreign Birds at the L.C.B.A. Show, 108.
 Notes on the Crystal Palace Bird Show, 167.
 The Rainbow Bunting, 220.

1910

- Notes on my Visit to Australia, 24, 151, 204, 331, 345.
 Bird Notes from the Zoo, 334.
 The Crystal Palace Show : Parrots, 137.

*The Black-hooded Parrakeet (*Psephotus cucullatus*), 197, 223.

*An Escaped Flamingo, 101.

1911

Bird Notes from the Zoo, 44, 69, 101, 128, 159, 188, 211, 267, 302, 339, 375.

Rare Birds at the L.C.B.A. Show, 75.

The C.P. Show ; Foreign Birds, 153.

The Common Quail, 124.

Practical Bird-keeping : iv. Parrakeets, 220, 246.

The Cinnamon Teal (*Querquedula cyanoptera*), 225.

*Heck's Long-tailed Grassfinch, 242, 270.

REVIEWS : *Foreign Birds for Cage and Aviary*, 49 ; *British Warblers*, 189 ; *List of Animals at the Giza Zoo*, 215 ; *Nests and Eggs of birds found Breeding in Australia and Tasmania*, 306.

1912

Bird Notes from the Zoo, 36, 71, 124, 141, 169, 197, 226, 251, 295, 342.

Practical Bird-keeping : x. Quails, 78 ; xvii. The Smaller Waterfowl, 289.

Foreign Birds at the Crystal Palace Show, 138.

*The Dipper as a Cage-bird, 143.

Review of the Report of the Giza Zoo, 202.

1913

The Ring-necked Teal (*Nettion torquatum*), 23.

Bird Notes from the Zoo, 36, 88, 122, 153, 211, 312.

*Ringing Birds, 128.

REVIEWS : *Report on Immigration of Summer Residents in 1911*, 99 ; *Nests and Eggs of Australian Birds*, 215.

1914

Bird Notes from the Zoo, 47, 320.

The Sun Bittern, 121.

Rufous-necked Laughing Thrush (*Dryonastes ruficollis*), 347.

1915

Parrots at the Agricultural Hall, 72.

1916

Nesting Notes from the Zoo, 297.

*The Owl Parrot, 238.

1917

Lorikeets breeding at the Zoo, 268.

*The Maned Goose, 210.

*Upland Geese Dying Off, 291.

1920

Arrival of S. African Birds [*Hamlyn's*], 12.
Stray Notes, 145, 166, 192.

1921

Stray Notes, 28, 41, 59, 87, 106, 153.
The Cedar Waxwing, 49.
The Scarlet-breasted Sunbird, 58.
A fine Collection from S. Africa, 172,
Fine Collections of Australian and New Guinea Birds, 181.
REVIEWS: *Practical Handbook of British Birds*, 44; *The Life of Professor Newton*, 125.

1922

The Naretha Parrakeet, a New Bluebonnet, 11.
Stray Notes, 27, 39, 75, 107, 122.
The Kagu, 74.
Birds in the Prince of Wales's Collection at the Zoo, 87.
Notes on the Red-rumped Grass-Parrakeet, 133.
The Display of the Magnificent Bird of Paradise, 138.
Breeding Roseate Cockatoos, 142.
The Zoological Gardens, 159.
Birds of Paradise on Little Tobago, 160.

1923

The Lesser Niltava, 33.
The Golden-shouldered Parrakeet, 34.
Birds of Paradise and Bower Birds, 41.
The Export of Australian Birds, 61.
The late Mr. J. D. Hamlyn, 63.

1924

Foreign Birds at the Crystal Palace, 61.
REVIEWS: *Practical Handbook of British Birds*, 112; *The Literature of the Charadriiformes*, 170.
OBITUARIES: *W. R. Ogilvie-Grant*, 330; *E. J. Brook*, 331; *Wesley T. Page*, 331.

1925

Foreign Birds at the Crystal Palace, 106.
The Grey-hooded Ground-Dove, 79.
Donaldson's Touracou, 141.
An Afternoon at Foxwarren Park, 153.
Two rare Lovebirds from Tanganyika, 154.
The Argus Pheasant and its Display, 176.
A notable Collection of South African Birds [*Gamage*], 217.
Mr. Whitley's Collection, 274.

The Importation of Australian Birds, 295.

REVIEWS : *Thorburn's British Birds* [New edition], 158, 293.

OBITUARY : *Arthur Gardiner Butler*, 179.

1926

Foreign Birds at Paignton, 16.

Whitley's Conure, 261.

Mr. Walter Goodfellow's Collection, 19 [Nov., 1925].

A Valuable Collection from the East, 334 [*Goodfellow*, Oct., 1926].

Foreign Birds at the Crystal Palace, 56.

The Nyasa Lovebird, 53.

The Derbyan Parrakeet, 145.

Early Aviculture, 80.

Avicultural Notes, 110, 141, 158, 188, 224, 320, 338.

REVIEWS : *Birds in England*, 112 ; *Birds of the Riviera*, 113, 340 ;
Thorburn's British Birds, 160, 340 ; *Problems of Bird Migration*,
159 ; *Records of Birds Bred in Captivity*, 341.

1927

The White-fronted Bee-eater, 1.

Colour-breeding in Budgerigars, 23.

The Budgerigar and its Colour Varieties, 205.

Steamer Ducks and Sheathbills at the Zoo, 245.

The Blue-breasted Roller, 25.

Avicultural Notes, 51, 86, 111, 172, 195, 224, 272, 306.

Foreign Birds at the Crystal Palace Show, 84.

Birds in N.W. Australia, 74.

Arrival of the Masked Lovebird, 146.

Layard's Parrakeet, 177.

The Tragopan's Display, 193.

Rare Birds from the East, 199 [*Delacour's*].

REVIEWS : *Birdroom and Aviary*, 198 ; *How Birds Live*, 199 ; *Cage*
Bird Hybrids, 274 ; *Among our Banished Birds*, 341 ; *The Birds of*
Bute, 342.

1928

The Migration of Snowy Owls, 1926-7, 11.

The Blue Variety of the Masked Lovebird, 25.

An Abnormal Gouldian Finch, 79.

The Society's Medal, 52.

Avicultural Notes, 95, 196, 224.

The New Bird-House at the Zoo, 104.

Some Rare Birds at the Zoo, 163.

The Black-headed Partridge, 101.

The Crimson-breasted Conure, 125.

Junglefowl, 136.

The Regent Bird, 231.

The Red-faced Barbet, 283.

REVIEWS : *The Budgerigar*, 23 ; *Birds at the Nest*, 76 ; *The Heart of a Bird*, 77.

1929

Arrival of Rare Birds from the East, 10 ; Mr. Goodfellow's Collection, 326.

Avicultural Notes, 23, 48, 83, 103, 122, 152, 173, 196, 264, 327.

Rare Birds in the New York Zoological Park, 147.

A Fine Collection of Papuan Birds, 148 [*Shaw Mayer's*].

The Breeding of the Crowned Lapwing, 155.

The Black-throated Crow-Tit, 166.

The Fire-tufted Barbet, 175.

The Green Broadbill, 231.

Colour-breeding in Budgerigars, 266.

Sandgrouse, 322.

REVIEWS : *Lord Tavistock's Book on Parrots*, 51 ; *Poems on Birds for Children*, 84 ; *Birds of Essex*, 149 ; *The Birds of Ayrshire*, 167 ; *Report on Heronries*, 167 ; *The Birds of S.E. Devon*, 196 ; *Who's Who in Aviculture*, 229 ; *The Field-Book of a Jungle-Wallah*, 306.

1930

The Blue Touraco, 1.

Hemipodes or Bustard-Quails, 16.

The White-bellied Touraco, 33.

Quails, 50. American Quails or Colins, 64.

The Raja Lory, 61.

Francolins, 67.

Partridges, 91 ; Grouse, 96.

Megapodes or Mound-Builders, 319 ; the Tinamous, 323.

The Purple-throated Cotinga, 113.

The Violaceous Plantain-eater, 141.

The Spot-headed Weaver, 253.

Bullock's Hangnest, 281.

Curassows and Guans, 294.

Shamas, 313.

Avicultural Notes, 25, 54, 78, 108, 129, 162, 194, 247, 334.

Feather-plucking in Parrots, 218.

Mr. Wilfred Frost's Importation, 308.

REVIEWS : *Handbook to the Birds of West Africa*, 81 ; *A History of the Birds of Norfolk*, 332 ; *Hill Birds of Scotland*, 333 ; *Secrets of Bird-Life*, 334.

1931

Schalow's Touraco, 1.

Breeding of the Crowned Pigeon, 20.

- Racket-tailed Parrot, 61.
- Blue Masked Lovebirds, 79.
- Duyvenbode's Lory, 125.
- Red-breasted Parrot (*Poicephalus rufiventris*), 153.
- Aru Island Parrot, 181.
- Two Rare Manakins, 237.
- Turquoise Grass-Parrakeet, 293.
- Paradise Birds from N.E. New Guinea, 325.
- Avicultural Notes, 21, 53, 203, 234, 254.
- Full-winged Mandarin Ducks, 87.
- First Importation of the Hoatzin, 196.
- The Forthcoming Crystal Palace Show, 351.
- REVIEWS: *Paradise Quest*, 346; *An Introduction to the Literature of Vertebrate Zoology*, 347; *The Art of Bird Watching*, 348.

1932

- Crimson Finch, 1.
- Painted Finch, 49.
- Splendid Grass Parrakeet, 73; Arrival, 36.
- Harlequin Bronze-wing Pigeon, 76.
- Nesting Habits of the Red-faced Lovebird, 83.
- An old Cockatiel, 113.
- Foxwarren Park, 117.
- Preserving Dungeness, 139.
- The Display of Rheinart's Pheasant, 122.
- Gouldian Finches, 162, 200.
- The Parson Finch, 265.
- Bicheno and Ringed Finches, 297.
- The Index Guide.
- REVIEWS: *The Budgerigar in Captivity*, 69; *Handlist to the Birds of Samoa*, 136; *Waterfowl and Game-birds in Captivity*, 327; *A Summary of Breeding Results*, 328.

1933

- The Great Crested Grebe Inquiry, 1931, 28.
- The Flightless Cormorant of the Galapagos Islands, 33.
- Lord Buckmaster's Bill, 61, 110.
- A Proposed Research Laboratory for the Diseases of Cage-birds, 87.
- The Fire-tailed Finch, 141.
- An Emperor Penguin in Europe, 169.
- The Arrival of Humming Birds, 173.
- Rare Birds from Kenya, 194 [*Webb's*].
- Mr. Shaw Mayer's Collection, 225.
- Breeding of the Spurwing Goose, 362.
- The Keston Bird Farm: A Successful Experiment, 364.
- Hybrid Barnard's and Red-rumped Parrakeet, 397.

Friendly Sheld-Ducklings, 398.

New Varieties in Budgerigars, 399.

Pheasant Eggs hatching after a voyage to Australia, 399.

Breeding habits of Red-legged Partridges, 429.

OBITUARIES : *W. H. St. Quintin*, 86 ; *Viscount Grey of Fallodon*, 393.

REVIEWS : *Coloured Charts of Indian Birds*, 52 ; *Cage Birds Annual*, 54 ; *The Meaning of Animal Colour and Adornment*, 201 ; *The Parrot Book*, 202 ; *The Care and Propagation of Ornamental Waterfowl*, 367 ; *Advice on the Rearing of Pheasants and Peafowl*, 368 ; *The Aquarium*, 368 ; *Bird Symphony*, 460.

1934

Rare Birds at Primley, 30.

Prolific Peach-faced Lovebirds, 30.

Foreign Birds at the Crystal Palace, 92.

Breeding of the Spur-winged Goose, 96.

A Hybrid Silver and Golden Pheasant, 115.

An Aged Goldfinch, 117.

Pheasant-keeping in Australia, 117.

Rare Birds in France, 120.

Successful Breeding of the Hooded Pitta, 190.

Birds from the New Hebrides, 146.

Mr. C. S. Webb's Collection, 189.

Notes from the Zoo, 190.

Brush-Turkeys, 193.

The Diademed and Salvin's Parrots, 305.

OBITUARIES : *Mr. C. T. Metzger*, 32 ; *Mr. E. G. B. Meade-Waldo*, 113 ; *Gerard Hudson Gurney*, 169.

REVIEWS : *Bird Life in the Isle of Man*, 111 ; *The Foreigner*, 112 ; *Island Life*, 169 ; *Budgerigars in Bush and Aviary*, 245 ; *Terns or Sea-Swallows*, 270 ; *Quest for Birds*, 324 ; *Idlings in Arcadia*, 325 ; *Birds of Great Britain*, 325.

The above has been taken from the Indices, and where entries have been marked with an asterisk as having appeared in the Correspondence Columns, the asterisk also appears here ; this practice seems to have been dropped in recent years. An occasional abbreviation (such as Zoo for the Zoological Gardens) has been used, and a few explanatory notes added (in brackets) where such seemed likely to be useful.

CORRESPONDENCE, NOTES, ETC.

BRITISH BIRD BREEDERS' ASSOCIATION

It may interest you to know that the following records have reached me from members of the British Bird Breeders' Association :—

British birds nesting—with eggs : Siskins, Linnets, Redpoles, Goldfinches, Bullfinches, Starlings.

British birds with young hatched : Thrush (Song), Chaffinches, Greenfinches, Linnets, Blackbirds, Bullfinches.

The recent spell of cold weather (mid-May) has checked birds which were nest-making, but does not seem to have affected those which had commenced incubating.

The earliest record of Goldfinches came from Dundee.

Great interest is being taken in breeding our native birds this year, and this newly formed association has now over 500 members.

HYLTON BLYTHE.

FEEDING THE GREY PARROT

Will any member of the Avicultural Society please advise me ?

I feed my Grey Parrot (*æt.* 25) on boiled maize in the morning and in the afternoon on the mixture advised by Lord Tavistock in *Aviculture* and fresh and cooked fruit.

Besides this she gets pieces of milk pudding, suet pudding, cake, bread and jam. Very often a rusk soaked in sweet tea. She is very fond of this.

She seems quite healthy but occasionally I have noticed she is very short of breath and breathes heavily and sometimes she will fall off her perch. This falling off her perch is usually in the evening after she has been covered up ; except for being alarmed, she seems well.

I doubt if the maize is good for her, though she seems fond of it.

Are these "oddments", pudding, etc., bad for her ? Should maize be cut out altogether ? Besides Lord Tavistock's mixture and fruit is there anything else one can give without doing harm ?

HAMISH NICOL.

RECORDS OF BIRDS BRED IN CAPTIVITY

Towards the improvement of these I am seeking the assistance of our members and would be very grateful if those who have bred rare birds and recorded the events would do so again in our pages, but with the following details added, which could probably be best given as answers to the following questions.

- (1) How many young birds fledged ?
- (2) How many left the nest (and date ?)
- (3) How many of these lived through the moult ?
- (4) How many were alive at the end of the year ?
- (5) How many reached a year old ?

From my own limited experience and from what I hear elsewhere, I fear the record will not be a very exhilarating one, but all these facts are of real value for any future record; I know too that the recording of losses is by no means as pleasant a job as its opposite.

My own recent records were given on page 55 and were fairly satisfactory, but their after-history is not quite the same, e.g.—

GREENFINCHES.—Two pairs; four or five nests; about twenty young hatched, twelve left the nest, from June onwards; three let go, nine over the moult and looking in perfect health in October; then six died and by 1st December only three alive. Of these only one is left now (1st May, 1935).

YELLOW SPARROWS.—One pair; three nests; one young bird left the nest from the third; through the moult by 1st December; died in the winter.

In both cases the old birds still alive and nesting again.

When I issued a summary of the *Records* a year or two ago, I considered that one could be fully satisfied with about 37 per cent, be more or less satisfied with 39, while of the remaining 24 per cent the less said the better.

From correspondence I gather that those who use the *Records* may be almost divided into two schools, those who doubt or discount, the whole, and those who seem to take a species inclusion there as clear proof that it has been bred. I hope that the mean is somewhere between these two extremes.

E. HOPKINSON.

THE PARROT BAN

Is it any wonder that the AVICULTURAL MAGAZINE grows smaller each month when two of its five pages are given up to such an article as that on the Parrot Ban. Almost wherever I go I make time to call on my poorer neighbours who keep birds and though I have seen a *great* many Parrots hardly one was out of condition.

If there are faults in the trade (which after all should be the practical way to procure birds) surely these could be rectified without putting a ban on one of the most fascinating families of birds in Aviculture.

Anyone reading Lord Tavistock's book should know how to keep a Parrot.

Let us spread knowledge by teaching—not prohibition. How much help could be given to budding aviculturists by broadcasts on bird-keeping. In my experience Parrots are one of the easiest birds to keep and soon become part of the family.

It seems from the many accounts given by private importers that their losses are exceedingly numerous, while the much maligned dealer manages to land his charges in really good condition.

I am sorry this letter is so long but the matter is one of great importance to all aviculturists.

MURIEL MAXWELL-JACKSON.

[We respectfully draw attention to an inaccuracy in the above letter, due, we are sure, to an oversight on the part of the writer, and would point out that although last month's issue of the MAGAZINE was unavoidably very short, this can in no way have been due to an article appearing at the same time.—ED.]

MEMBERS' ADVERTISEMENTS

The charge for Members' advertisements is ONE PENNY PER WORD. Payment must accompany the advertisement, which must be sent on or before the 20th of the month to Mr. T. H. NEWMAN, 46 FORTY AVENUE, WEMBLEY PARK, MIDDLESEX. All members of the Society are entitled to use this column, but the Council reserves the right to refuse any advertisement they consider unsuitable.

SALE AND EXCHANGE

PHEASANTS, Impeyan, Swinhoe, Golden.—H. SPENCER, Yew Court, Scalby, Yorks.

PENNANTS, hen, £10; Rock Peplar hen, £9; fully acclimatized; 30 ft. flights; hen Diamond Dove, 14s.; hen Nonpareil, 16s.—COX, Marshwood Manor, Bridport, Dorset.

LAVENDER-BACKED Finch *Sporophila castaneiventris* hen, £2; Blue-breasted Waxbill cock, 12s. 6d.; Bengalese cock, 7s. 6d.; 1934 bred Gouldian cocks, 30s. All wintered outdoors.—POTTER, Church Square, Basingstoke.

HEN Blue Sugar-bird, perfect, sell 30s.; or exchange for cock or other foreign.—C. H. HEAL, Stanley Villa, Paulton, Somerset.

WANTED

JULY number of *Aviculture*, 1927, to complete volume.—HAMISH NICOL, Hillside, Christchurch Road, Hampstead, N.W. 3.

ADULT Trogopan, Elliot and Peacock Pheasants; also wanted hens in exchange for cocks Impeyan Pheasants and Swinhoe Pheasants.—H. SPENCER, Yew Court, Scalby, Yorks.

COCK Peters Spotted Firefinch, hens, Cherry Finch, Crimson Finch, Grenadier Waxbill, Humming Birds. For sale, pairs Hecks Grassfinches, Masked Grassfinches, Long-tailed Grassfinch. Exchange entertained.—Ashby, 34 Balblair Road, Ayr.

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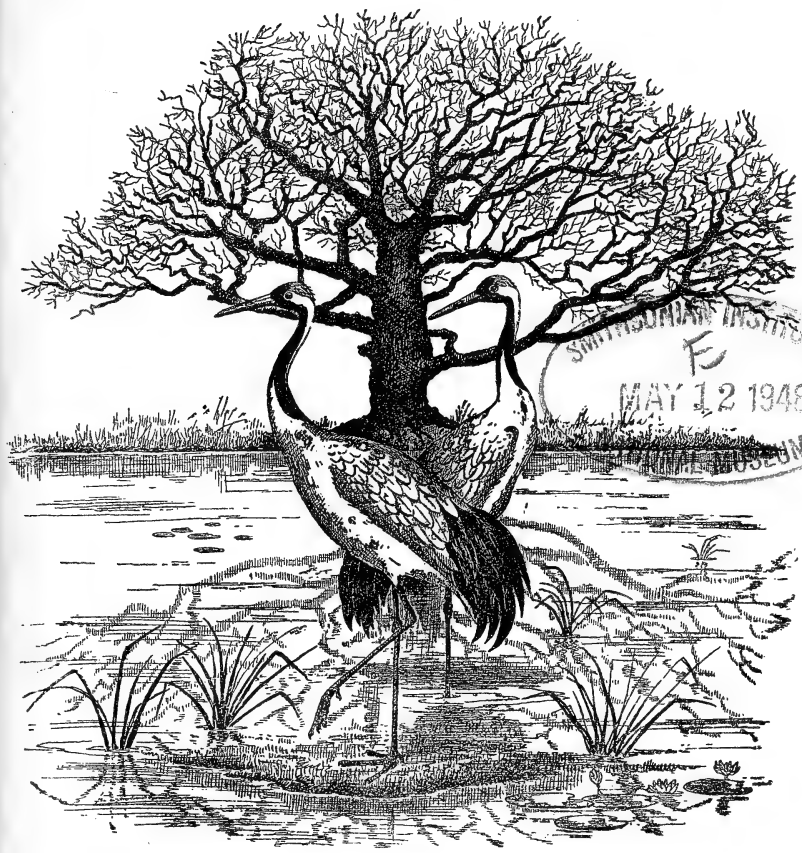
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THE Avicultural Magazine



BRITISH MUSEUM
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CONTENTS

	PAGE		PAGE
The Rosy Twin-spot (<i>with coloured plate</i>)	197	Bermudan Notes, by SYDNEY PORTER	218
The Breeding of Peter's Spotted Firefinch, by Mrs. K. DRAKE	198	Hard-hearted Hannah, by Dr. E. SPRAWSON	224
Lives of Some Aviary-bred Birds at Mylor, by Mrs. K. DRAKE	199	Notes for 1935, by the MARQUESS OF TAVISTOCK	227
The Parrot Ban and the Future of Aviculture, by C. S. WEBB	201	Fertility of Hooded Siskin and Canary Hybrid, by Dr. MAURICE AMSLER	229
My Birds in Scotland, by Mrs. R. G. ASHBY	205	In a Hampstead Garden, by A. SHERRIFF	232
Softbills, by Mrs. R. G. ASHBY	208	New Books: <i>Some Birds of the London Zoo</i> ; <i>The Birds of Midlothian</i>	236
Mice in Aviaries, by D. SETH-SMITH	212	Mr. Seth-Smith's Testimonial	236
Successful Rearing of the Silky Starling, by ALFRED EZRA, O.B.E.	214	Correspondence, Notes, etc., Further Successes at Mylor; The Ornamental Pheasant Society; Breeding the Ceylon Bulbul; Birds of a Tasmanian Garden	237
Precious has an Adventure, by Miss B. DE PLEDGE	215		
The History of A I, by Miss E. F. CHAWNER	216		

THE AVICULTURAL SOCIETY

FOUNDED 1894

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The Subscription to the Avicultural Society is £1 per annum, due on the 1st of January in each year, and is payable in advance. The entrance fee is 10/-. The *Avicultural Magazine* is sent free to members monthly. Members joining at any time during the year are entitled to the back numbers for the current year, on the payment of entrance fee and subscription.

ALL SUBSCRIPTIONS SHOULD BE SENT TO THE HONORARY SECRETARY AND TREASURER, MISS KNOBEL, 86 Regent's Park Road, London, N.W.1.

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Rule 1.—A short account of the illness should accompany the specimen. All birds to be sent as fresh as possible to Mr. C. H. Hicks, The Zoological Society of London, Regent's Park, London, N.W. 8.

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Rosy Twin-spot
Hypargos margaritatus.

THE AVICULTURAL MAGAZINE

THE JOURNAL OF THE
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AUGUST, 1935.

THE ROSY TWIN-SPOT

(*Hypargos margaritatus*)

The present species bears a very close resemblance to the well-known *Hypargos niveiguttatus*. It may, however, easily be distinguished by the much paler general colouring and by the fact that the flank-spots in the male are washed with pink. The female shows only a tinge of red on the upper tail-coverts.

The sudden appearance of this pretty little bird last year alive in this country was, perhaps, one of the most unlooked for occurrences that could well have happened, for its history and the little that is known of the species go to show that, even if not one of the rarest of the African *Estreldidae* it is certainly very local.

Hypargos margaritatus was first described by Strickland in 1844 from a specimen procured at the Cape and subsequently presumed to be an individual escaped from captivity. It was not then heard of again until 1906, when a pair arrived from Portuguese East Africa. In 1933 it suddenly made its appearance over here alive, and without any data as to locality. Even from this scanty information we can conclude with tolerable certainty that the species, though local, may be abundant within its limited range, which appears to be the district of Inhambane, in Portuguese East Africa.

The few individuals which arrived alive were, unfortunately, not

in robust condition, and we cannot say whether anybody is lucky enough to have a pair alive at the present time. Should there be an odd survivor it might be worth attempting to pair it with *niveiguttatus* or even *Mandingoa nitidula*.

A. C.

THE BREEDING OF PETER'S SPOTTED FIREFINCH

(*Hypargos niveiguttatus*)

By MRS. K. DRAKE

My Peter's were purchased at different times, one arriving only in January of this year. I turned the pair out into the aviary during the middle of March from a non-heated greenhouse, and towards the end of the month a nest was built and three eggs laid, of which only one hatched in very cold weather, the chick only surviving two or three days. The pair at once set to work to repair the nest and this time four eggs were laid, about the 17th April, which hatched between the 28th April and the 1st May, according to the bits of egg-shell seen around. A basket-nest was chosen, made for me—my own design—by the inmates of the Plymouth Blind Institution ; I might here add that last year the Cordon Bleus and Common Firefinches reared their young in the same sort of basket-nests made by the same Institution. The nest itself was the ordinary domed affair that most Waxbills build of hay and feathers.

Two birds left the nest on the 17th May and two more on the day following. During the period the young were in the nest I placed in a tiny dish a little egg-biscuit food slightly moistened with water, to which occasionally I added a pinch of Marmite ; also I gave a spoonful of "Mosquito", and sometimes, to make a change, I would mix the two together. Very few meal-worms were taken and some days, it seemed, none at all. I could get no live ants' eggs or cocoons so could not give any, and I never bother about the dried ones as I consider they are only fit to mix in a proper insectivorous mixture. The birds enjoyed spray millet ; they also had canary seed and Indian millet,

but would not touch the best white Italian millet. I sometimes gave bunches of flowering or seeding grass, and often a split-open grape.

The parents were always difficult to find owing to their habit of hiding in the bushes, where they always appeared to find food of some sort. When the young had left the nest a week all four were learning to feed with their parents, who always appeared greatly alarmed for their safety. At night they saw them safely inside the shelter, where the young roosted on the top of a square box-type wood nest; then they would leave them for the bushes outside, where they slept. On leaving the nest the young appear in a brownish garb with a little red on tail and showing reddish tinge on the breast; also white marks each side of the beak. At first they were very wild and nervous, but after a week tamed down. Now they are about two months old and looking very spick and span, brighter in colour and with white spots (on two birds spots showed on the 4th June (? cocks)). I bred Peter's three to five years ago. I cannot recollect the year and I have no note of it, beyond sending a tiny specimen to our late Editor, Mr. D. Seth-Smith. Then I had very bad luck, as the young I found scalped after leaving the nest; so, needless to say, this time I took the precaution of removing every bird out of their division. I think I have said all except that I am very pleased to have succeeded this time in the rearing of Peter's Spotted Firefinches.

I might mention that the parents have again gone to nest, but unfortunately this time out in the open, a nest on the ground under a rose-bush and primrose clump. It is impossible to give it extra covering owing to the branches that criss-cross above.

LIVES OF SOME AVIARY-BRED BIRDS AT MYLOR, CORNWALL

By MRS. K. DRAKE

Date of Birth.

June, 1930.	1 Hybrid Goldbreast × Avadavat; killed April, 1935.
June or	4 Hybrid St. Helena × Orange Cheek; 2 in second
July, 1931.	and third year; 2 alive.

Date of Birth.

June, 1931.	4 Hybrid Nutmeg \times Bengalee ; still alive. 4, second nest ; sold.
July, 1931.	15 Gouldians ; 3 died at moult ; 1 escaped, and 11 sold at 6 to 10 months old.
May, 1932.	2 Hybrid Pectorals ; 1 died January, 1933, 1 February, 1934.
June, 1932.	3 Pekin Robins ; 2 died at moult ; one sold at 5 months—lovely bird and songster.
June, 1933.	Shamas ; none alive after $2\frac{1}{2}$ months.
June, 1934.	Shamas ; none alive after 1 month.
June, 1933.	4 Common African Firefinches ; 1 died early ; 1 alive to-day ; and 2 sold.
July, 1934.	4 Common African Firefinches ; 2 died at moult ; 2 sold but, I heard, died.
July, 1934.	4 Cordon Bleus ; 3 sold at 6 months ; 1 alive and nesting.
June, 1934.	Y.W. Sugar-bird ; 1 died at 2 months ; 1 alive to-day.

Young of Zebras, Bengalese, and Diamond Doves, Goldbreasts, and Avadavats usually lived 4 to 6 years. I still have an aviary of "old birds".

With imported birds my luck is not by any means good, except as far as Weavers and Whydahs are concerned. Here are a few I will mention :—

Zebra Finches, breeding birds, die often after two years.

Cordon Bleus, hens, breeding birds, die often after two years. Cocks live longer.

Bengalese hens, breeding birds, die after about two years. Cocks live on.

Nutmeg Finch, cock, I have had $8\frac{1}{2}$ years and still going strong. Hen died after two years.

As for Firefinches (common African), cocks after two years, and hens, if alive when they arrive at the station, generally die at the second year's breeding ; but two out of three are generally dead before I fetch them from the station !

Enough of the small birds—now for better luck ! Giant Whydah, $7\frac{1}{2}$ years, a fine bird ; Ultramarine Finch, $11\frac{1}{2}$ years, going strong ;

Scarlet Tanager, $8\frac{1}{2}$ years, magnificent ; Orange Bishop, $11\frac{1}{2}$ years, still goes to shows and always wins a pretty good card, but owing to colour feeding (which I think should *not* be permitted with foreign birds, and I refuse to do it, hating tampering with Nature's—or should I say God's—most perfect colouring) both Weavers and Pekin Robins do not stand a chance of high honours at any show. I should like to see all judges refuse to look at man's hideous colour-fed bird. Enough said, perhaps too much ! No, not too much !

Well, now to continue : Napoleon Weaver, $8\frac{1}{2}$ years, very lovely ; Persian Bulbuls, all long lived ; White-winged and Crimson-collared all seem pretty long lived ; Saffron Finch, including life in a previous aviary, $8\frac{1}{2}$ to $9\frac{1}{2}$ years, living now ; Indigo Buntings do not live long with me now, usually having fits at moulting ; Rainbow Buntings are better, but mine at 4 years (lost one lately) looked very old, and I rather longed for the lovely thing to “ pass over ” where I shall see him in his youthful glory again.

Now I shall keep two of my young Peter's and probably exchange two ; it will be interesting to see their length of life compared with imported birds, which I have never kept any length of time. But, mind you, I do think most breeding birds die through fights—they are mostly killed because we will put too many birds in an aviary and we (perhaps) do not study colour and temperament sufficiently—having so frequently noticed birds of a reddish hue dislike any other birds tending to that colouring at all. Of course, there may be exceptions ; I speak only through sitting for many hours watching my own birds. I trust this article will open out further correspondence.

THE PARROT BAN AND THE FUTURE OF AVICULTURE

By C. S. WEBB

Many of the remarks made by Mr. Porter in the June issue might be applied to the importation of birds in general, and I quite agree that the ban on the exportation of birds from many tropical countries has suppressed a great amount of cruelty. It seems only a question of time before nearly all countries adopt the same policy and then

aviculturists in England will find it difficult to obtain the varieties of foreign birds they once knew and liked so well. There is increasing agitation in this country for the introduction of legislation to prevent the keeping of any foreign birds in captivity, and so it is quite time that members of the Avicultural Society did something to safeguard themselves before it is too late. It is a pity that the Avicultural Society is not on the same footing as well-known zoological institutions, for then the procuring of birds for its members from countries which have protective laws would not be so difficult, but before this can happen there will have to be many changes. At present very few people other than members have ever heard of the Avicultural Society, and few people (including some Government officials) even know the meaning of it, and so perhaps for this reason the title might be altered with advantage. It is also doubtful if many people know what the objects of the Society really are. This being the case, how can the Society claim exemption from any laws which apply to the general public? There are many influential individuals and societies interested in the suppression of cruelty to birds in captivity. To most aviculturists these people are popularly known as "cranks". As things are at present there is undoubtedly a great amount of cruelty involved in many cases in the importation of birds, and it is difficult to see how the Avicultural Society can reply effectively to the criticisms of the so-called "cranks". From a humane point of view there is much to be said in their favour and it seems to me that our Society might make it generally known that it is doing its utmost to do away with the keeping of birds under improper conditions and, in fact, join forces with any other society which has this object in view, instead of merely calling them nasty names. The Avicultural Society might then become respected by all parties and its members enjoy certain privileges. It is, of course, very difficult to get all our members to see eye to eye, as their interests are so varied, and many people are only concerned with their own particular point of view, even if it happens to be detrimental to the interests of members in general.

Some, although being fond of keeping birds, are extremely callous and are not at all sensitive to birds' sufferings. Many will look over a consignment of birds which has been imported on the "mass

production " principle, with most of the birds suffering in consequence, and then pick out the best specimens. These can usually be obtained very cheaply owing to the quantity packed into each cage and the fact that the birds have been looked after by a member of the ship's crew in his spare time. To purchase such birds, rather than pay a little more for others which have been brought over under decent conditions, gives some people intense joy—only to be compared with that of a woman at a bargain sale, but these actions are merely making the " cranks " more determined to entirely suppress the keeping of birds in captivity. Then there are those who are only concerned with the show-bench. A few of these are genuine aviculturists, but the majority exhibit for financial gain only, or for the " kick " they get out of winning a prize. Where many different species of foreign birds are placed together in one class it must often be to a great extent a matter of personal opinion which birds are deserving of the highest awards, though this does not apply to the showing of domesticated species, where one has to keep up to a recognized standard. The latter is a fine interesting hobby, calling for much skill when mating up birds so as to eliminate faults.

In many cases those who show foreign birds do not even know from which countries their birds originate, and their interests do not extend beyond their desire to win prizes, therefore they can hardly be called aviculturists. Showing also seems to breed a certain amount of ill-feeling among exhibitors, for when a judge is also a dealer there are usually nasty things said if one of his clients happens to gain a first prize. I am not saying that these accusations are justified, but it can hardly be called a pleasant business.

I imagine that the main objects of the Society are the studying of the habits of foreign birds in captivity, their breeding and domestication, and to those interested in the scientific side, the changes of plumage, such as the eclipse plumage in certain Sunbirds, and members concerned with these studies usually contribute interesting articles to the Magazine to the benefit and delight of all those in search of knowledge.

Regarding the importation of birds in vast quantities, dealers who have specialized in this have done a great amount of harm to the trade in general, as well as to aviculture, on account of the disgusting way in which the birds are usually imported. They have also been the direct

cause of laws prohibiting export being introduced into many countries, partly because the authorities concerned are afraid of the local bird life becoming unduly diminished or extinct, but mainly because of complaints received from people who have witnessed the revolting sight of hundreds of birds packed into small cages with numbers dead and dying. Dealers who conduct their businesses on decent lines can be encouraged and are more or less a necessity to aviculturists, but the appearance of dealers' advertisements in the AVICULTURAL MAGAZINE does not help matters where collecting abroad is concerned. As already noted, many countries now only allow birds to be exported to Zoological Institutions (thanks to "mass production" importers), and so I have tried to impress upon officials abroad that members of the Avicultural Society are just as worthy of consideration as any zoological institution, having better opportunities for breeding birds and for giving them personal attention. To give them an insight into our activities and interests I have shown them copies of our Magazine, but they have been little impressed because of the sight of dealers' advertisements, for, owing to the activities of the type of dealer previously referred to, they are wholly against any birds going to the trade, and are naturally not in sympathy with any society which publishes their announcements.

It might be helpful if the Magazine were enlarged and brought up to the standard of other publications, and some effort made to increase its circulation, as this would do a lot to raise the Society out of its present state of obscurity. To attain this object abroad it would probably help if complimentary copies were sent to zoological societies, museum authorities, game wardens, etc., especially in our own Colonies. I would be happier if someone else had brought up this matter, which is rather of a controversial nature, but is one which may affect the whole future of the Avicultural Society. Being a collector myself it may appear to some people that this has been written from a purely personal standpoint, but I think I have stated the facts. If readers will come forward and make suggestions (rather than useless criticisms) which will be to the ultimate benefit of the Society I shall be satisfied, even if in the meantime I have made myself unpopular with those who have guilty consciences.

MY BIRDS IN SCOTLAND

By MRS. R. G. ASHBY

The thought that we are not supporting our new Editor is my excuse for these notes.

Aviculture to the enthusiast is restricted by two important factors, accommodation and purse. In my case (perhaps fortunately), both of these exist. The former is, I fear, the more important. Overcrowding spells failure, at least as far as breeding successes, all the time. Nevertheless, I continue to tempt providence year after year. Instead of reducing my stock it is the reverse. Naturally providence exacts the extreme penalty and I regret my achievements are practically *nil*.

My accommodation comprises the four sides of a smallish garden. The four sides are aviaries, all 6 feet high and 6 feet broad. With the exception of a "wilderness" aviary, all have cement floors. The flights average about 18 feet each in length, with shelters, unheated, each 6 feet long. One flight is divided lengthwise. A bird house, electrically heated, thermostatically controlled, and a conservatory complete my establishment.

The bird house, the lighting being from the roof, has three rows of shelves around the room. By means of wire fronts and slides I can divide each shelf into seventeen cages about 18 inches long or any number down to one, the latter cage being a flight of about 32 feet. The conservatory has three racks of shelves, two of which can furnish fifteen cages each and the other eight. This latter rack is of much larger size, and cages can be 9 by 2 by 2 feet if desired. This size accommodated my Toco Toucan and Touracou all last winter, and they were in perfect condition.

The climate here is particularly mild, as we are at the seaside, and there is an almost entire absence of smoke. My losses are now a minimum and usually due to my own indiscretions. For example, I have lost this season three Peter's Spotted Firefinch cocks. I have now discovered the cause. Pairs were placed in the "wilderness" aviary with a pair of Melba Finches. I am now satisfied that these two species cannot be associated as the cock Melba kills the cock Peter's. *Ruficaudas* and Heck's are left alone. I wonder if any other member has had a

similar experience. However, I am digressing. The conservatory, as it is practically all glass, is subject to extremes of temperature. In the summer afternoons as high as 130 degrees is reached, but the birds do well in it. In the winter it is heated by a patent gas fire. I found that even 18 feet of a tubular electric heater could not keep the place warm.

With the exception of Budgerigars and Cockatiels all my birds are wintered indoors, and it is the work of a morning to attend to them. In the summer, when most are outside, my labours are considerably reduced.

Now as to the inmates of the aviaries, etc. I am almost ashamed to admit the contents of No. 1 (miscellaneous) aviary. Here overcrowding is at its worst. Nevertheless, some pairs are nesting, but I am not at all optimistic. Lavender Finches, Common Firefinches, Cordons, Queen Whydahs, Chestnut-breasted Finches, Bichenos Finches, Crested Bengalese, Masked and Long-tailed Grassfinches, Olive Finches, Golden-breasted Waxbills, St. Helena and Grey Waxbills, and Sharp-tailed Finches are the pairs. Two hen Peter's, a Black-cheeked Waxbill, and two cock Pintailed Whydahs are the odd birds. I had also in this aviary a pair of Green Cardinals, odd hen (?) Nonpareil Bunting, Hawfinch, and several Weavers, but I have deposited these at our public aviaries.

I may say that I have found Whydahs quite safe with other birds. They are inclined to chase a little, but no harm has resulted.

A Toco Toucan occupies an aviary. Caged indoors he is a delightful pet and very tame, but outside his welcome is almost vicious. A pair of Purple-headed Glossy Starlings is in the next aviary. I find all these larger insectivorous birds do very well on a mixture of Saval No. 1, which is very cheap and only requires moistening. I am indebted to our member, Mr. A. Wilson, of Glasgow, for this advice. He has used it with several Birds of Paradise, and I find it superior to the ordinary expensive mixtures, although I make my own soft foods.

Pairs of Cockatiels, Red-headed Gouldians, White-throated, St. Helenas, and Heck's Grassfinches are in the next aviary. The Cockatiels have young and the Heck's and Gouldians are incubating eggs.

The "wilderness" aviary contains Ruficauda Finches and Heck's,

both incubating. Pairs of Peter's Spotted and Melba Finches were also here, but they have now been removed.

The bird house contains the pick of my collection. Two Sunbirds, an Abyssinian Splendid, and a Port Natal are in perfect health. The former dotes on spiders and will take them out of my fingers. He has finished a complete and severe moult, although he was never in eclipse plumage. The Port Natal, at least that is my identification (I have only Shelley and Jardine to work on), was in eclipse plumage and he has been with me nearly a year. He is now changing rapidly. Until recently I had a third, the Lesser Bifasciated, the gift of our Editor. Unfortunately he died about a month ago. He was the wildest bird I have ever kept and anyone who has kept a Golden Oriole will appreciate what I mean.

Five Chinese Zosterops and a pair of Blue Sugar-birds are together in a long flight. Zosterops are my favourites. They are so delightfully inquisitive. They are fed on nectar (wrongly I have been told) and fruit, but as I have had them for nearly a year and they are in perfect condition I am sure the feeding suits them. They love rose-leaves with green fly and I allow all my "ramblers" to bear good crops of these.

Pairs of Long-tailed Grassfinches, pairs of the new Capped Waxbills (both the Red-flanked and White-breasted), Melba Finches, two delightful pairs of Dufresne's Waxbills, and an odd Cherry Finch, Crimson Finch, and Scaly Crowned Weaver take up all the available space.

The conservatory houses a Racket-tailed Drongo, in almost complete plumage with beautiful tail rackets, and a Golden Oriole. Both have large flights. Pairs of White Java Sparrows, Magpie Mannikins, Pekin Robins, and a Grenadier Waxbill cock are all in cages. A Shama and Golden-fronted Fruitsucker, both very tame, and a Blue-fronted Amazon Parrot and a Blue and Yellow Macaw, both talkers and finger-tame (as far as I am concerned, but curiously to no one else), complete my little family. I am omitting Budgerigars, of which I have about sixty.

I have on the way seven pairs of Australian Parrakeets, but my "castles in the air" are Humming Birds and Birds of Paradise. Last

year I had a rare Livingstone's Touracou and a Blue-tailed Pitta, but both caught colds at exhibitions and I lost them.

My only real achievement this year is the reproduction of freak Budgerigars. I have a Cobalt hen with a white head and cobalt instead of white wing markings. By mating her son to her I have already three young all similarly marked, two cocks and one hen. I do not think this has been done before.

May I hope that all our members will follow my example and give us particulars of their birds ? Our mouths may water, but what of it ?

SOFTBILLS

By MRS. R. G. ASHBY

The number of aviculturists who have never kept "Softbills" is surprising. The mere mention of an insectivorous species seems to frighten them. Although I have kept them for only a little over four years, as long as I keep birds I shall have them. It is true they require more attention than seed-eaters, but their tameness, even if all other qualities are ignored, makes them most desirable. At present I have about a dozen different species. The ease by which they may be kept is clearly indicated in the case of my maid. She came to me some months ago and had no knowledge of birds. I am able to go away most week-ends and have already had ten days' holiday away from home. I do not suggest that the birds receive quite the same attention as when I am at home, nevertheless she manages them splendidly. In fact I feel quite jealous at times for they seem to know her as well as they know me. It is, therefore, with the object of persuading "hardbill" enthusiasts to become "softbill" enthusiasts that these few hints are written. They are solely the result of my own experiences.

There are, of course, some species which require much more attention and experience than others. Nevertheless, many of the seemingly "difficult" birds are, in fact, the easiest. My own "bete noir" is the Festive Tanager. To emulate Mrs. Pearse in the breeding of them is my ambition. Unfortunately I have never possessed other than newly imported specimens.

With "softbills" the golden rule is cleanliness. Perches in

particular require unremitting attention. I have never tried covered ones, as this seems to me to be the lazy way. "Softbills" suffer so easily from sore feet. Use natural twig perches. In the cages of the smaller varieties fix branches (practically miniature trees) on coils of wire. These are easily made by coiling wire round a pencil. The main branch is placed in the coil, which is fixed by a staple to the floor. The coil acts as a spring and the branches "give" when used. The jar on alighting on a fixed perch is undoubtedly harmful to any species. This branch type of perch has the added advantage of offering different sizes, thereby affording the necessary exercise for the feet.

All perches must be washed daily. The stickiness of those used by fruit-eaters and nectar-feeders is astounding.

Place the single perches at different heights in the cage, always avoiding them being directly above food or water dishes. Let them be a fair distance apart, as this compels flight and the subsequent wing exercise is essential for keeping the birds in tip-top condition.

Coarse sawdust is undoubtedly the best covering for the bottom of the cage. I have experimented with moss litter and turfs of growing grass, but the sawdust is admirable. Do not use the fine variety, as there is the danger of it entering the eyes when blown about during flight.

Water, preferably rain-water, must be supplied for drinking and bathing. If a newly imported bird will bathe it will almost invariably live. Regular spraying is a splendid incentive to bathing. For drinking, the small fountains which clip to the wire are the best. They are then unable to bathe in the drinking water. When fresh water is put in a healthy bird will usually bathe at once.

The flower-pot pans made of clay make splendid dishes for the bathing water. White dishes, apparently, do not give the birds any idea of the depth and they are accordingly reluctant to use them. A rough stone, placed in the pan and large enough to show just above the water-level, gives confidence. The main objection to these pans is that they are slightly porous and the damping of the sawdust around them gives the impression that bathing has taken place, when this is not the case. Change all water at least once daily, and thoroughly wash all receptacles.

Now as to food. Generally speaking the staple food of most insectivorous birds, nectar-feeders excepted, is a soft food mixture. There are many such preparations on the market and most contain the same ingredients. I make my own, but this has the disadvantage that I have to supply many friends, who will use no other. This mixture costs about half the price of most proprietary brands. Moistening a soft food with either boiling water or grated carrot is all right if one's personal attention is given all the time. It goes sour in a day in hot weather. The mixture I recommend requires no moistening, keeps for weeks in perfect condition, and is eaten to the last grain. Surely the test for a sound food !

For those interested here is the recipe. To 7 lb. of "common" soft food, obtainable at any of the larger dealers at about 9d. a lb., add 1 lb. each of dried sifted flies, ants' eggs, and ground silkworm sifted pupæ. Try and obtain the latter whole and grind it yourself. The mincing machine with the finest slide is admirable. To this add 3½ lb. of finely ground biscuits. Your grocer will supply broken biscuits as a discount on your account. Gingerbreads, shortbreads, sweet, Osborne, etc., all go in. Mix, adding about 2 oz. of maw seed. When thoroughly mixed add, a little at a time, 3 lb. of melted honey. Put the jars with the lids off in a saucepan, with water, on the stove. Honey will mix so much easier when hot. After using half a jar fill up with Vitamin Malt and a little Virol. Mix this and the other 2 lb. into the mixture. The result will be crumbly moist and although it sounds messy one rinse under the tap and your hands are clean. You will then have about 16 lb. of perfect soft food at a cost of well under 1s. a lb. Do not moisten when supplying and ration each bird. You will soon find how much he takes and give the same amount daily. In the case of the more delicate species double the amount of biscuit.

For the larger softbills this is too rich and too expensive ! Spiller's No. 1 Saval moistened with water is probably the cheapest of all the soft foods and it is most satisfactory. It will not sour although it is better given fresh daily. Tanagers enjoy this mixture and for the larger birds such as Touracous, Toucans, Drongos, Starlings, even Birds of Paradise, it is ideal.

Most insectivorous birds will take fruit and should be given it.

I do not believe in over-ripe specimens. As with bathing, if a fruit-eater will take apple he will live. Throughout the year we have a liberal supply of fruit and the apple all the time. Pears are excellent, banana in moderation, as it is apt to constipate, whereas orange purges. A little of each does no harm. The white water grapes are also popular. Try and ring the changes as much as possible. Remember that you have deprived the bird of its liberty and it is your duty to give it the best feeding and conditions possible. Dates are very good and some birds will take figs. Cherries, strawberries, plums, pomegranate, etc., are all cheap when in season. Green food such as lettuce and chickweed is often appreciated. Just a hint as to the best method of giving fruit. Make a fairly stiff piece of wire into a flat elongated "S". One end will hook on to the punchbar of the cage and the other transfix the fruit. This has the advantage of keeping the fruit clean, gives ready access to it, and the bird is not soiled on the neck and head.

For nectar-feeding birds, and these are probably the easiest to keep in good health, a nectar food is essential. A thin mixture of water and Mellin's Food, honey, and Nestle's condensed milk is ideal. As a change give Horlick's Malted Milk in the place of Mellin's. A spot of Marmite or other meat extract or Virol occasionally is advisable. I have never tried white of egg in the nectar, but I am told it is good, particularly during the moult.

Feed the nectar by means of the small fountains previously referred to. In summer time it will be found that more nectar is consumed than in the winter. It is advisable when renewing to make a weak mixture of honey and water for the afternoon or evening, as this will avoid over-fatness. Supply all the small live food obtainable. Greenfly, spiders, and wasp grubs are live food taken by nearly all species. Meal-worms, in moderation, and cockroaches appeal more to the larger birds from Tanagers upwards. Incidentally, at the commencement of the moult, put the meal-worms, etc., in olive oil before feeding with them, and you will be surprised at the improvement in the sheen of the plumage.

Finally a little tip on taming. Always give the live food from hand. When the bird is used to taking it hold the food in such a manner that the finger of the other hand must be surmounted before it can

be obtained. Soon you will have him on your finger and the rest is easy.

Amongst the "softbills" I have kept on the food and methods advocated and, with the exceptions previously mentioned, in perfect condition are the following: Ornate, Superb, Tricolour, Striated, Blue and Black, Scarlet, Maroon, and Festive Tanagers. The larger species are represented by Livingstone's and Donaldson's Touracous, Green-billed, Red-billed, and Toco Toucans, Racket-tailed Drongo, Mynah, Blue-tailed Pitta, Shama, Blue-cheeked Barbet, and various Bulbuls, including Green Hardwicke's and Chinese. Starlings include Green Glossy, Royals, and Purple-headed. A Brazilian Hangnest, Golden Oriole, Pekin Robins, and a Corncrake (released as an unsuitable "cage bird") complete the insectivorous varieties. Nectar feeders include seven varieties of Sunbirds, Blue, Yellow-winged, and Black-headed Sugar-birds, and several Zosterops.

MICE IN AVIARIES

By D. SETH-SMITH

In the June number of the Magazine Mr. Sydney Porter mentioned an arrangement that I have found very successful in ridding aviaries of mice. One has always known that the ordinary "Little Nipper" mouse-trap is a useful invention, but it cannot be set in an aviary without careful protection or it will catch the birds. It can be set in an empty bird-cage or under a box and may do a certain amount of execution; but it occurred to me that the design of a box in which to set these traps would prove the secret of their success. These little traps as sold have a sharp spike on which one is supposed to place the bait, and one has found that the mice soon fight shy of a baited trap, and will not go near to it. It seemed necessary, therefore, to set the traps in such a way that the mouse would not realize that a trap was there at all.

If you provide a dark box with a small opening, and place this on the floor of the aviary, you will find that mice cannot resist exploring

its inside, and if you divide this box into several compartments, separated by partitions, and in each partition cut a hole not more than half an inch wide by about an inch high, mice will squeeze through these openings very readily. And further, if you arrange a "Little Nipper" trap so that in passing through one of these openings the mouse has to place its whole weight on the wooden pedal, you will find that it will be caught every time.

I have made these boxes of various lengths to take more or fewer traps, but the size I have found most handy is one to take four "Little Nipper" traps.

It is formed of $\frac{1}{2}$ in. wood, the internal measurements being 13 inches long by $4\frac{1}{2}$ inches wide, and the height $2\frac{1}{4}$ inches. It is divided into three compartments, and the shape of the divisions is important. They are made of zinc, and slip into saw-cut grooves at either side. At each side of each of these divisions a piece is cut out, allowing a doorway for the mouse, and these doorways are only half an inch wide and about an inch high. It is necessary for the mouse to have to squeeze through with some difficulty, and in doing so to exert pressure upon the wooden pedal of the trap which is set against the opening. There are openings at each end of the box for the mice to enter, and these are half an inch wide by one inch high, which is too small an opening for any bird, though it will admit full-grown mice. The box is, of course, fitted with a lid.

I always cut off the wire spike which is provided for bait, as this is unnecessary. The traps are set close up against the partitions in the corner against the openings, one in the first compartment against, say, the left-hand opening, the next in the middle compartment against the opposite (right-hand) opening. The third, also in the middle compartment, against the left-hand opening of the second partition, and the fourth trap against the right-hand partition in the third compartment. When the box, with its traps set, is placed in position a pinch of canary seed can be sprinkled inside, but even without any bait mice will be caught because they seem to be unable to resist entering these boxes.

SUCCESSFUL REARING OF THE SILKY
STARLING*(Spodiopsar sericeus)*

By ALFRED EZRA, O.B.E.

I have had a pair of these attractive birds for several years in one of my large aviaries with several other birds, and although they have nested every year and hatched out young, these were never reared. This spring they built a nest of straw, grass, leaves, twigs, and feathers, in a nest-box that was hanging on the wall in the sleeping quarters of the aviary about 9 feet from the floor. On 28th May four pale blue eggs were seen, and by 7th June three young ones were hatched out, the fourth egg being infertile.

During the incubation we noticed that the male bird was behaving in a very strange way. He absolutely deserted his wife and paired up with a hen Pied Grallina (*Grallina cyonoleuca*). They were constantly together and were even seen sitting together on a mud nest the Pied Grallina had built. In the meantime the hen Starling looked after her young, and fed them well on meal-worms, gentles, and sometimes earthworms and caterpillars. Some of the latter were taken by the hen from the Royal Starlings. Three young left the nest on 27th June, and as I was afraid of them being attacked by their father, we removed the hen with the young into a small aviary which they had all to themselves. Here they were fully reared and are feeding themselves without the aid of the mother. They are particularly robust birds and very strong on the wing. The successful rearing of these birds I put down to the non-interference of the cock bird, who, being fully occupied with the Grallina, had neglected the family. In so many cases I have found the cock bird the real culprit, and when removed, young have been reared successfully. I wonder what will happen when I put the hen bird back in the same aviary as the cock bird, of course removing the Pied Grallina first. I believe this is the first time this Starling has been bred in captivity.

PS.—Since writing the above I have removed the Grallina from the Starlings' aviary and have put the hen Starling in with the cock bird. They are very good friends again and look like nesting almost at once.

PRECIOUS HAS AN ADVENTURE

By MISS B. DE PLEDGE

Precious and I went for a walk in St. James's Park the other day. Precious, I must tell you, is a Cockatiel which I brought from North-West Australia eight years ago, and he is a great character ; when he feels in the mood for it he likes going out sitting on my shoulder with a little lead on his foot. He is great friends with all the bus conductors, who make a great fuss over him, and he seems to enjoy the noise and racket of the traffic which sets him off whistling various tunes ; but, to return to St. James's Park. I was talking to one of the park keepers when I heard a whirr of wings passing my ear and an excited cry of " Wirroo ! Wirroo ! " (the natives of North-West Australia call these birds Wirroos) and I turned to see my bird, who had slipped his leash, making a most beautiful flight, finally alighting on the top of a very tall plane tree. Even in the dreadful moment of losing him I was thrilled by the beauty of it. He sat on that tree for hours, making occasional flights, and for hours I waited, hoping he would come down to me. He always answered my call, but seemed quite happy where he was. I sent home for another Cockatiel, which was brought to me in a cage, but he was a stupid bird and refused to make a sound. About 9 o'clock suddenly out of the blue came thousands of Starlings, half of which settled on the plane tree where Precious was, the others passing on. After that I heard no further sound and no answer to my whistles. I stayed on till the park closed and then went sadly home, fearing I had seen the last of a wonderful companion. I was back in St. James's Park before 5 o'clock next morning, taking the other bird with me in a cage. I walked round and round the park calling, but got no response. In my wanderings I met Mr. Hinton, the bird keeper of the park, who stopped and asked if I was the lady who had lost a bird because, if so, he had seen it a short time before circling round by the Guards Monument, and he very kindly took me to where he had seen it. I whistled several times but at first got no response, then in the distance a faint reply, and the next moment he was circling and swooping down ; but he did not come down, and finally alighted on a very tall tree. I located him and put the other bird under the tree,

but he would not call, I suppose the reason being that he is in a rather heavy moult. I think the thick foliage confused the bird and he did not seem to know how to get down. I waited about three hours, Precious making occasional flights but always answering my call and each time alighting a little lower in the tree till finally he got on to a branch where he had a clear view, and he kept peering down, chattering "Be a good boy, babee" and then an emphatic "Don't do it". I took the other bird out of the cage and put him on my shoulder. Precious never quite approves of that, and when I started to pet the other bird it was too much for Master Jealousy in the tree and he promptly flew down on to my head, saying, "Good boy." The rest was easy. I put up my hand and he came on to my finger and I put the other hand quietly over him and the next moment they were both safely in the cage, Precious, I think, nearly as glad to be back as I was to have him. He whistled his tunes all the way back with great gusto, and I arrived home a tired but very happy and triumphant woman. I was very lucky getting him early before there were many people about to scare him.

THE HISTORY OF A 1

By MISS E. F. CHAWNER

A 1 is a small Amazon Parrot: his Latin name, which no one ever remembers to call him and which I believe he would contemptuously repudiate, is *Amazona xanthops*. He and two even younger and barer brethren came together in a box one chilly afternoon of that most chilly and dismal summer, 1928, all very shivering and crying piteously. Their poor little bodies were sparsely covered with fluff and their immature wing feathers had been severely clipped, leaving a large exposed patch of bare back. Their heads seemed unduly large, as they were tolerably well feathered, and they kept nodding up and down keeping time to the hoarse cries which greeted us when we unpacked them. One was obviously not long for this cold world, the second *might* live, and the third was sturdier and seemed promising.

I believe if I could have given them heat, by which I mean a steady

day and night temperature of 80 degrees at the lowest, they might all have lived, but this I could not do and C 3 and B 2, as the weakling and his rather sturdier brother were named, soon went to another and, I hope, a better place. A 1 had made his mind up to live, though he had his ups and downs. His favourite food at this stage was cold boiled rice of all chilly things ! However, he ate this when he refused everything else and grew on it.

After a month or so he found that his beak was strong enough to crack sunflower seed and he lived on this and pea-nuts with a slice of apple daily all through his first winter. More than once he nearly died from a chill, during which he refused food and if he could be persuaded to swallow some dainty soon vomited it, but somehow or other he managed to survive and by spring his fluff was hidden under green feathers, though the mutilated wings never really recovered. He developed fancies and “ways” of his own, became devoted to his owner, tyrannized over the household, and openly disdained the rest of the world. He was never caged, though he had and still has his “house” into which he retires when the world is too much with him or when strangers are about. He hates visitors and goes grumblingly inside, occasionally looking cautiously round the corner to see if they are still there ; he celebrates their going with various queer sounds, for he has never learnt to talk, which lack, however, does not prevent him from making his wishes plain.

In hot weather he sits in his favourite apple tree most of the day “pruning” its small branches and amusing himself by biting off immature apples and watching them fall. He usually comes down when called, but sometimes the gardener has to climb to fetch him. We think on those occasions he has climbed too high and is afraid to venture down. He eats young twigs with relish. His diet is curiously varied : he loves to soak a piece of dry bread in his water mouthful by mouthful, keeps watch on the vegetables when they come to table, and expects a share of peas, beans, young carrots cooked or raw, cauliflower, and occasionally cabbage. He adores hot soup and has his own little pot every evening. Cooked egg in all forms is a favourite, Quaker oats raw or cooked ; most kinds of fruit are accepted, but he will only take orange when he feels rather “low” moulting. Poppy

seed heads while still green and milky are a great joy, so is a fresh head of sunflower, though he despises the dried seed. Brazil nuts are first favourites at all times, walnuts if fresh and moist, and he always has a dish of shelled pea-nuts by him. He is fond of milk, which he drinks from a teaspoon and rarely spills, a lump of sugar dipped in very weak tea is a rare delight, and thick cream spread on bread or toast, but he is not a very large eater and, as one of his admirers says, he never "eats for greed".

Of course, he is mischievous like all his tribe. He loves to be taken into the greenhouse where, if not closely watched, he nips off flowers and bites the hearts out of bulbs, pulls up seedlings, and generally wreaks havoc. His safety valve in winter is the wood basket, in which he will "carpenter" all the afternoon quite happily.

We say "*he*", but I have a strong suspicion that "*she*" is the right pronoun. During April and May the bird evidently wants to nest and goes through the antics of a bird which is desirous to pair. In this case it begins with a crooning noise gradually intensified until it becomes ear-splitting shrieks, while the bird lies flat on arm or shoulder, and only leaves off when panting and exhausted. An attempt was made to pair it with another kindly lent by the Zoological Society, but the two would have nothing to say to each other, possibly they were both of the same sex.

He, for I must call "*him*" so, is emphatically one person's bird. His owner can do anything with him but he is frantically jealous of anyone touching her while he is on her shoulder. He is civil to the gardener and cook but bullies the parlourmaid, who is afraid of him and he knows it. He condescends to sit in the kitchen when his mistress is away but not for a moment after her return, which is greeted with shouts of joy.

BERMUDAN NOTES

By SYDNEY PORTER

Bermuda differs entirely from the West Indies in lacking a distinctive avifauna such as those islands possess. The probable explanation of this is that the islands in their present state are of comparative recent

origin. They are formed of coral with only a few feet of top soil, hence conditions have not been conducive to the evolution of any very distinctive birds. Bermuda is in the migratory route of the North American birds and its avifauna is, for the main part, only a transitory one.

Six species of birds only are resident and the other two hundred or more on the list of Bermudan birds are merely passing migrants or strays blown out of their normal course. Even such birds as the Corncrake and the Wheatear have been recorded from the islands.

Bermuda is an amazing place and is composed of a great number of small and very beautiful islands all lying so close together that they are mostly joined together by bridges. The whole place is of great beauty and is a fitting jewel in the crown of Empire, in fact there are few more lovely spots in the possession of the Crown than this group of fascinating islands. Though not by any means tropical, the climate seems very equable, the thermometer seldom dropping below 60° F. in the winter, if indeed one can call the cool season by that name.

The islands, before they were colonized, were covered mainly by a dense growth of cedar trees and much of this still remains though most of the larger timber has been cut out. Much exotic flora has been introduced and the islands now blaze with a riot of gorgeous colour of which magnificent oleanders and hibiscus are the main feature. I was fortunate in seeing the six resident species of birds, all of which are North American. A very great joy was vouchsafed to me in seeing an old favourite for the first time in a state of freedom, namely the Blue Robin or, as it is known in America and also in the islands, the Blue Bird.

What an amazingly beautiful creature he is: we think him lovely enough in our aviaries at home, but he is a hundred times more lovely in the wonderful sub-tropical beauty of Bermuda. The Blue Birds are seen everywhere where there is rank vegetation, floating with a remarkably light and buoyant flight usually from some tree to the ground and back in search of insects. His upper parts seem to reflect the cerulean tints of the Bermuda skies and the under parts the brown and white of the Bermudan soil.

The Blue Bird takes the same place in these islands and also in America as the Robin does with us at home. When one sees him in his native state it is easy to see that he belies his English nomenclature and bears no affinity to the true Robins : in fact it seems the practice of most people to call any type of small confiding bird a Robin, especially if it possesses a red or chestnut breast. I have seen the Blue Birds busy on the freshly ploughed fields searching amongst the newly ploughed turf for insects : in this the bird rather resembles a Robin but its general demeanour and flight resemble that of a Fly-catcher.

In Bermuda the bird is resident and does not migrate. It has been classified as a distinct species and called *Sialia sialis bermudensis*, but the difference between this and the American bird is very slight.

It will ever be a charming combination of memory to associate my visit to the sylvan isles of Bermuda with my first acquaintanceship with that glory of American avifauna, the Blue Bird.

Another surprise awaited me in making my first introduction to another prime favourite of British aviculturists, namely the Virginian Cardinal. How gorgeous this fiery scarlet bird looks amid the sombre greenery of the cedar trees. After the introduced sparrow this is perhaps the most conspicuous if not the commonest of the native birds. The glowing plumage of this bird is fittingly matched in the scarlet of the hibiscus and a hundred and one other tropical blossoms which grow so profusely in these glamorous isles.

I have often watched these birds searching for insects in the crevices in the bark of the cedar trees and also, like the Blue Bird, looking for insects in the newly turned earth in the gardens and fields. The birds are very tame and allow a very close approach. What an asset this bird would be to the English countryside if it could be established, but I am afraid that it would be unable to withstand the onslaught of game-keepers' guns or village boys' catapults.

This Cardinal has also been separated from the mainland species but only by scientists whose hobby it is to find microscopic differences between different sub-species of birds.

In a wild state this bird lives far more on insects than on seeds and

I think many people in England make a great mistake in keeping it solely on dry seed instead of treating it more like an insectivorous bird.

The first endemic land bird which came under my notice was the North American Catbird (*Dumetella carolinensis*), which was observed in the small cedar trees on some of the tiny islands in the Great Sound, as we crossed from the naval dockyard on Ireland Island to Hamilton.

In flight and general demeanour this bird resembles, from a distance, a small Blackbird, except that it is far more arboreal than that bird. It is only on close acquaintanceship with the bird that one sees the true colours, which are a dark smoky grey with a black cap and bright chestnut under-tail coverts which seem always to be conspicuously displayed.

The Catbird, though quite common, does not appear as common as the Cardinal though, of course, it does not catch the eye like the flaming garb of the other bird. This bird has a fine loud song which may usually be heard in the evenings. It has been separated from the American species, from which, if it does differ, it appears to be slightly darker.

Another indigenous bird is the little Bermuda White-eyed Vireo (*Vireo griseus bermudianus*), a local representative of a well-known family of North American birds. This delightful little warbler-like bird resembles very much both in appearance and in colouring and size a Zosterops. It has the same restless demeanour in its ceaseless search for the minute insects upon which it feeds. During the short time I was in Bermuda in June of this year I saw many birds feeding their young ones, so the breeding season in these islands must correspond with that at home. This charming little bird is very common and is found in all the gardens and plantations on the islands where there is thick vegetation.

Another very distinctive member of the avifauna is the tiny Bermuda Ground Dove (*Columbigallina passerina bermudiana*). As one drives along the dusty roads in the comfortable horse-drawn "Victorias", for no motors are allowed to disturb the peace of these islands, one continually surprises pairs of these diminutive doves. They are usually searching for tiny seeds on the bare ground, but as soon as they see the approach of a stranger they break into a quick

trot and as one gets nearer they scurry out of the way with a peculiar undulating flight. It is then that one sees the bright chestnut flights which are ordinarily hidden from view. An aviculturist whom I met on the islands told me that owing to the abundance of cats these delightful little birds are being greatly reduced in numbers. These Doves, in common with all the other birds on the islands, are protected but I think something should be done to reduce the number of cats which prey on the native birds.

This little Dove is the only endemic bird which can be classed as a true species as it differs from the other Ground Doves in being much duller in colour and lacking the scallop-like markings which the nearly related Ground Doves of the West Indies possess. This bird is double brooded like most of the Bermudan birds and builds a very slight nest at a moderate height in the cedar trees.

In keeping with most of the West Indian islands, Bermuda possessed, before the advent of Man to its shores, a peculiar Petrel which appears to have nested in great numbers in holes burrowed in the shallow soil on most of the islands. In common with the "Diablotin" (*Pterodroma hasitata*) of Dominica, Martinique, and Guadaloupe, this bird was slaughtered in huge numbers for human consumption and like the former bird soon became apparently extinct. This bird was known on the islands as the "Cahow" from its cry. Several early writers on the history of Bermuda mention it and give fairly accurate descriptions of it. Many years ago a Mr. Mowbray, whom I had the pleasure of meeting, discovered at a depth of about 20 feet below the surface some semi-fossilized skeletons of two of these birds, obviously adult and young, possibly a bird which was sheltering its almost adult young when there was a fall of the soft coral sand in its nesting-hole which buried both birds. I saw both these skeletons at Mr. Mowbray's house. The same gentleman had the distinction of discovering an adult bird of this supposedly extinct race: he found the bird sheltering under a crevice in the rocks after a storm of exceptional severity. This bird is now the type specimen of the species and is in an American Museum.

The first birds seen as we approached Bermuda were the Yellow-billed Tropic Birds (*Phaethon lepturus catesbyi*). There were large numbers of these birds flying round the coral rocks, where they were

nesting. They look very beautiful with their glistening snow-white plumage and long streaming tail feathers. These birds bear no resemblance to gulls but look like small Gannets, birds to which they are allied. Their prey is secured in the same manner as a Gannet, by diving into the water from a good height above the surface.

The feet of Tropic Birds are so tiny that the birds are practically unable to move about on land. They nest in the crevices and holes in the soft coral rock around the coast and I was told that they were almost exterminating the Audubon's Shearwater (*Puffinus lherminieri*), who use the same nesting holes, the Tropic Birds now arriving before the Shearwaters have finished breeding and killing the nesting adults and young birds.

The fore-mentioned birds with, of course, the exception of the "Cahow", were the only birds I saw as my call did not coincide with the spring or autumn migrations of birds which use these islands as a kind of half-way rest house. A sojourn during either of the migratory periods would be of great interest for it seems that at some time or another a large percentage of North American birds have been met with on the islands and, as mentioned before, many European birds have been also procured such as the Snipe, Skylark, Wheatear, etc. Mr. Mowbray possessed an immature Snowy Owl caught on the islands, probably a young, inexperienced bird which had been blown out of its course.

The English Sparrow is exceedingly abundant and is found everywhere: it will even fly on to the ships before they have come into port to see what there may be in the way of food. He looks a very different bird in his spruce clean plumage to his grimy relations in London. It is stated that this bird has become so numerous that there is a grave danger of it displacing the endemic birds.

The European Goldfinch is also found in flocks in Bermuda, but is nowhere as common as the Sparrow.

In the grounds of the Bermuda Aquarium is one of the most delightful outdoor aviaries I have ever seen. It is a large and well-built structure; the span roof, which is of wire netting, was covered with alternate board about 6 inches apart to give the birds shade from the semi-tropical sun. Most of the floor space was taken up with a series

of freshwater pools containing many varieties of tropical plants, the most noticeable being the beautiful blue water lily. These pools were inhabited by various species of fish and terrapins. This would be an ideal place for tropical waders. As the aviary had only recently been completed it had few inhabitants, also it is very difficult to get imported birds in Bermuda. This fine aviary had been built by Mr. Mowbray and his son, and these gentlemen also owned several other interesting birds, including several Macaws which were at liberty in the grounds and in perfect condition and also a female Cocos Island Tropic Bird which they had kept for two years and which was in very good condition. A great feat surely to keep such a difficult bird for so long a time. Although full-winged the bird made no attempt to get away.

HARD-HEARTED HANNAH

AN EXPERIENCE WITH THE BROWN-HEADED MARSH TROUPIAL
(*Agelæus frontalis*)

By EVELYN SPRAWSON, M.C., D.Sc., etc.

Although in our Magazine it should be entirely unnecessary to say so, it is perhaps best, at the outset, to affirm the veracity of what follows.

In the autumn of 1923 or 1924 (wireless enthusiasts with a love of jazz will be able to date it correctly from later evidence) I purchased a pair of birds which were new to me, and turned out to be Brown-headed Marsh Troupials; and, about the same time, a pair of Green Cardinals.

The Troupial may be described as a small seed-eating Starling, said to come from Eastern Brazil and other parts of South America; the male is glossy blue black with a bright chestnut crown and throat, a rather pleasing bird, and the female, which is slightly smaller, a neat but quietly coloured brown bird; they have rather long, sharply pointed, wedge-shaped beaks.

These four birds were kept together for the winter in a large 5 ft.

cage in the bird room and were apparently peaceably disposed towards each other, and all, although newly imported, were practically in perfect feather.

When we had had them for a few weeks we used to notice that the male Cardinal was usually standing on the floor of the cage when we entered the room ; we did not know why, but merely noticed that it was so. It occurred to us that he might be a bit " hen-pecked ", though he did not appear to be so, indeed they all seemed the best of friends. To test this we put the sliding division in the cage, separating one or other birds from the rest, but there was little difference : the cock Cardinal though not so constantly on the floor often was so, but flew up on our entry. We concluded that he might be a bit nervous of the smaller but mainly black cock Troupial, though he never showed any signs of it, so we took the sliding division out and thought no more of it.

Early in the New Year the cock Troupial was one day found dead on the floor of his cage, with a hole in his skull just to one side of the occiput. As there were no feathers about or signs that any of the birds had been fighting we thought that possibly a mouse had got into the cage and done the damage, so had a mouse offensive and caught two.

About March, the remaining three birds were transferred to the fairly large shelter of an outside aviary, where they could get plenty of exercise preparatory to being let out into a large flight for the summer ; with them in the shelter were several Orange and Half-masked Weavers, a Giant and two Paradise Whydahs, a Grey Cardinal, three Queen Whydah cocks and two hens, and a—then rare—Mexican Blue Grosbeak. These had all lived peacefully and happily together throughout the winter when the three birds were added from the bird room—and still all appeared to be peace.

In April we found an Orange Weaver dead beside the food pot with a hole in his occiput. We had had him some years—had he died a natural death and a mouse done the damage after death ? We did not know, but thought not. Anyway we wanted to breed the Green Cardinals, so now transferred them to a place by themselves, and let the Weavers, Whydahs, Troupial, etc., out into the flight and placed a small dish of millet in a corner of the aviary, which was a convenient

place to watch as the birds came down to feed when we were seated outside the aviary.

Shortly after this, on each of three successive mornings we found a Queen Whydah dead beside the dish of millet in the open, each time with the occipital skull opening and no other damage.

By the process of exclusion it was now pretty evident that if a bird was the murderer it could only be the hen Troupial, and as we could not get a mate for her and in any case did not wish to retain such a doubtful character, we got her into the shelter by herself, opened the door, and gave her her freedom.

A dish of millet and some water were placed on the lawn just outside the aviary: she spent a good deal of that day trying to get back into the aviary, but found the food we had provided for her.

The next morning a dead Sparrow was found beside the food pot on the lawn with the usual skull perforation, and this happened on two subsequent occasions during the next fortnight, but after three weeks of freedom we saw her no more. Her victims throughout were males.

We never saw her aggressive towards anyone, and other birds would freely perch and sit adjacent to her and show no fear. I presume, of course, that she was an exceptional bird, but I have not kept the species since. She came from South America, the land of Savannahs, and during that winter, in those days when we used ear-phones and crystal sets to listen in, one was nauseated with the constant repetition of a song about "Hard-hearted Hannah, the vamp of Savannah"—which ultimately gave the Troupial her not inappropriate name.

Why did she do it? Was she a murderous misanthrope? Her beak, anyway, was the ideal weapon for making such wounds as she inflicted, and from the positions of her victims in the aviary and at freedom she must have been quick, certainly she was very neat.

Concerning this bird the late Dr. A. G. Butler wrote in Part II of *Foreign Bird Keeping*: "I shall never purchase another"—and I agree with him.

NOTES FOR 1935

By THE MARQUESS OF TAVISTOCK

The breeding season of 1935 has so far produced only very moderate results, largely, it would appear, owing to the spell of arctic weather in mid-May which put many birds back badly.

Yellow-mantled Rosellas have reared four young and the hen is sitting again. Last year they reared six in their first brood and the hen laid again but did not sit.

Mealy Rosellas have reared two young and the hen is sitting again. Last year they reared four and did not nest a second time. A young hen bred in 1934 has not laid.

One pair of Pennant's have six young in the nest and the other pair have eggs.

The Yellow-bellies that reared four young last year are sitting. Their offspring of the previous season have not bred.

The White Roseate Cockatoo paired to a light grey hen have young in the nest.

The albino pair laid five eggs which they broke after a month, but they seem to have been infertile.

The Leadbeater's appeared interested in their nest but were so put off by the cold weather in May that they fell into moult and have done nothing.

Banksian Cockatoos seem about to lay but the eggs are always infertile and I have given up all hopes with them until I have changed the cock.

A Worcester's Hanging Parrot, paired to a Sclater's, also always has infertile eggs. For some years she laid and incubated in a nest-box, but the last two seasons seems to have decided that she might have better luck if she conducted operations on the sand-tray in the aviary shelter!

My old pair of Crimson-wings hatched two young but they were killed in the nest by black ants. These insects, in spite of their small size, are little brutes when they can get hold of any defenceless creature. On another occasion they decimated some young green tree frogs I had bred, when they were hibernating in a cage in the greenhouse.

The hen Crimson-wing laid one egg of a second clutch and then fell into moult.

The second pair of Crimson-wings reared only one young one in their first nest, as against three last year, but the hen is sitting again, an unusual event with this single-brooded species.

The Common King's six eggs proved infertile. I lost my breeding cock last winter by an accident and his successor seems to be of no use.

My old Sula Island King died of egg-laying trouble, though not of ordinary egg-binding. I had had her about 20 years, but she showed no sign of age. She produced, some years ago, several handsome but infertile hybrids with a Crimson-wing.

The Rock Peplars were a failure. I had changed my breeding cock for another of a better colour and he kept on getting ill just when the hen should have been laying and she deserted her nest-box where she had reared young for two seasons and went back to her old silly habit of laying her eggs in the aviary shelter.

The two pairs of Barrabands have gone to nest and one pair have young.

Stanley's did not nest. The hen was a 1934 bird bred at Keston.

Owing to much trouble with egg-binding and consequent complete absence of results in 1934, I decided not to give my two young hen lutino Ringnecks and two pairs of Malabars their nests until 15th May. The experiment was not very successful, as one Ringneck and the Malabars dropped into moult and did not nest at all. The other Ringneck started laying from the perch about 7th May, and now has two lutino-bred green young in the nest. Her mate is an ordinary wild bird. A lutinistic hen Plumhead, paired to her three-year-old son (?), had infertile eggs, but the son may be a daughter! His actions when a year old were those of an undoubted male but he has never come into colour and his tail is short. Another lutinistic pair dropped their eggs from the perch and broke them.

Two pairs of Layard's are nesting, as also may be a third hen mated to a Plumhead.

For many years I have had bad luck with Derbyans as I have only had one cock that would consent to live and, as he was very wing-stiff from long caging, I sent him to the Zoo as an exchange for a free-flying

bird that promptly died on me ! My old bird added to my regret at parting with him by the touching way in which he never fails to recognize me and give me an enthusiastic welcome if I visit the Parrot House. This spring, however, I succeeded in getting a very fine cock bred in America by Dr. Wood, of Pasadena, and at last there are young in the nest.

A Plumhead mated to a rather aged cock Slaty-head hatched one young hybrid which disappeared.

Two pairs of Adelaides are nesting but I do not know with what result. My lovely lutino hen, alas ! died in the winter.

The Queen of Bavaria Conures should be nesting by now, but I fear are not doing their duty. The cock is a tiresome creature. After doing well with me when he first came over, he became demoralized by wrong feeding when sent to France and now plucks himself to a scarecrow and does damage to his wife's plumage as well, entirely failing to respond to every infallible up-to-date cure for feather-plucking on the market ! Last year he disgraced himself by murdering his offspring in the nest.

Grey Parrots and Swift Parrakeets show some signs of breeding but I am not too hopeful of either.

The one great hope (which naturally will *not* be realized) is the Racket-tailed Parrots, which are laying. I got a second pair of this beautiful but tricky species last autumn but the hen died soon after arrival and the cock in the spring. A third young pair imported this summer are now in an aviary. They seem to do best in movable aviaries with heated shelters.

FERTILITY OF THE HOODED SISKIN AND CANARY HYBRID

By DR. MAURICE AMSLER

Although the word Canary is taboo in these pages, the following notes on the crossing of this bird with the Hooded Siskin should be of interest to many bird lovers. When healthy, the Hooded Siskin is a beautiful little fellow and a good singer to boot, but except in certain

individuals of inherent hardiness they are difficult to acclimatize for the first year or so.

As is well known, a certain faction of the Canary fancy is aiming at a Red Canary, and to this end have introduced the red factor by means of the male Hooded Siskin.

I believe that the Canary they use when obtainable is the *recessive* White, which is only in the hands of one or two breeders up to the present. The bulk, if not the whole of the White Canaries on the market, is of the *dominant* type—that is birds which if mated to normal Canaries produce White offspring, recessive under the same conditions produce normally coloured young.

These details did not interest me greatly, but what did give me food for thought was the discovery that some of these hybrids were fertile. As is well known, hybrids between the Canary and other Finches such as the Linnet, Goldfinch, etc., are sterile, although out of the thousands bred in the past one or two have been stated to be fertile.

The Hooded Siskin, as I have already said, is a delicate bird, and the number of successful nestings in this country, at any rate, have been very few. Although frequently imported for many years it was first bred by me here in 1912.

For the non-initiated it may be explained that the first cross, say between a Canary and Siskin, is called F 1, the next cross either way F 2, and so on.

I argued that if I could get some fertile F 1 hybrids I might get some F 2 the next year, using the male Siskin each year—and F 3 the following year—thus I might evolve, if I lived long enough, an almost pure strain of Hooded Siskins which might be much hardier and better breeders than the true species.

With this end in view I mated two cock Siskins with four border hens last year and two of the latter were Whites and two were Yellows. One of the hens did no good, but from the other three I obtained ten hybrids, four cocks and six hens.

This may sound good going, but a fancier abroad in 1933 bred, I believe, over forty young from one Siskin and a number of hen Canaries.

Of these young only one showed the red Siskin parentage in his nestling plumage—he turned out to be a cock—the mother being a White. There appears to be two types of F 1 hybrids—the copper-coloured bird with a black cap and the grey or ashy birds, in which the cocks again have a black or dark head: the former are of course much the handsomer.

As my idea was to get F 2 hybrids by using the male Siskin again, I parted with two of my cocks and obtained females in exchange. This, as I have found out since, was a very foolish move, for F 1 hens are always sterile, F 2 usually so, but when one gets to F 3 the chance of a fertile hen is a good deal greater.

This information was borne out in seven aviaries when I tested the F 1 hens with one or two cock Canaries—before trying them in cages with cock Siskins. I did not get a single fertile egg.

Now let us turn to the cock hybrids. There were four—one, whose colour I forget, went to Mr. Allen Silver and I heard about a month ago that he had an F 2 hybrid “on the sticks” from a mating of this bird with a border hen Canary. I hope that by now he has had further successes. A second bird I gave to a woman bird lover who had been kind to me, who mated him to a hen Lancashire Canary. Even with this disparity in size she obtained a chick in the first nest, which lived to 11 days and which she thinks would have been reared had she not at the ninth day removed the cock who was a bit too fussy, upon which the hen threw up the sponge. This same hen has now a clutch of fertile eggs from which much is expected.

A very fine dark copper cock I lent to a Canary and hybrid breeder who put him up with a White border of my own breeding. Two clutches were clear and the bird was returned to me and turned out into an aviary with some hen Canaries and several F 1 hens.

About a fortnight ago I found a Buff border hen on two eggs, one of which was fertile. This egg was put under a hen Canary sitting in a cage, and the chick, a very dark coloured bird, is now a week old. The father of this chick is either the above-mentioned copper bird or else a plain ashy-grey cock who inhabits the same aviary.

These rough experiments have gone to prove that in my strain,

at least, three out of four cocks are fertile, i.e. 75 per cent. Possibly in better hands the proportion would have been 100 per cent.

The same border hen is sitting again ; if any of her eggs are fertile she will be allowed to rear the young herself, as it is getting late for foster-mothers in cages. I fear my chances of rearing any young from this nest are meagre as I seldom manage to rear Canaries in aviaries, though they are easy enough, but more trouble in cages.

With any luck I may have two or three F 2 hybrids next year.

Cocks I should mate with Canary hens, and hens, if they prove fertile to a Canary, I shall try with Hooded Siskin cocks. Apart from the amusement derived from these experiments which, by the way, might be carried out on highly scientific lines by anyone who had time, the results are quite pleasing, for the first cross male hybrid is a perfectly delightful and constant singer, to my mind far in advance of either parent. Should any other member be working on the same lines I should be very glad to hear from him, as a change of blood may be useful or necessary in the latter stages of these crossings.

IN A HAMPSTEAD GARDEN

By A. SHERRIFF

Successes in rearing birds have not been frequent here for a year or two. This season so many birds wish to nest that there was not sufficient space to afford them all the necessary facilities.

There are two large breeding aviaries and a winter aviary which comprises six small flights, each with an inner flight. Behind these are two larger bird-rooms and the whole is heated by water pipes. The aviaries are by no means ideal, but it is very doubtful if anyone has found the perfect aviary. Improvements that could be made are numerous but expense has to be considered, and if birds are happy and live well we have to be content.

The difficulty of finding suitable food for nesting insectivorous birds has encouraged us previously to give them liberty when breeding. This is not nearly as difficult as it sounds but there are many risks.

The birds may not stay, one may die, and in those circumstances the other will probably disappear. If young are reared, they may decide that they are not happy with the environment and decide to seek happier hunting-grounds. Worst of all, a marauding cat may leave the young in the nest to die. If it were only law that cats, like dogs, should be kept under control and not allowed to create havoc amongst young birds or to cause sleepless nights by their caterwaulings, aviculture in this neighbourhood would be easier. Eight young Painted Quails died a sudden death owing to their ability to squeeze through half-inch wire netting, on account of one of these animals.

The first attempt to nest this year was made by two out of three Black-headed Sibilas which were bred in 1930. The pair had been put out into the largest breeding aviary in early May, and survived quite happily the severe frost of that month. It is really amazing how hardy they are. In early June they had hatched two young, one of which presumably died after seven days and was carried away by the parents, for no trace of it was discovered. As soon as the young were hatched, a hole about 12 inches square was cut in the wire of the aviary at the top and a perch which projected "in and out" was affixed by a nail. It took only a few minutes for the cock to find his way out and ever since then they have been at liberty. The one youngster is now almost indistinguishable from the parents and spends all day at liberty, but generally returns to the aviary to roost. Probably we shall catch him up soon, but in any case it is doubtful if he would leave unless the parents drive him away. This is a point to be considered, for we believe that the old birds have another nest, though it is very difficult to obtain definite confirmation. The hen must have had a very narrow escape from death as she is now minus a tail; no doubt a cat again. It is surprising for a Sibia to be so caught for they are extraordinarily quick in every way.

About the same time that the Sibilas had hatched, the pair of Shamas had built a nest and were busy incubating three eggs, from which two young duly emerged. For the first time we tried giving them their liberty but another cock Shama in an adjoining aviary was the cause of so much diversion that we had to shut them up again. This was accomplished without any difficulty. Why the young died after

a week we are still at a loss to understand. However, another nest was started and two eggs hatched. We decided to give the parents their liberty for the second clutch. Everything seemed well, but apparently they were too happy with their new found liberty to worry sufficiently about the fledgelings. So another disappointment! Now the parent birds have been left free in the garden and most strangely the hen has built a nest in a flower-pot in the Sibias' aviary (which is, of course, open) and is now busy sitting on three eggs. Dare we hope for a real success this time? The eggs should be hatched any day now.

It is better for the birds to find their natural food for the young, than that they should be fed on meal-worms, which are a poor, though a necessary, substitute. They are delightful to have about the garden and tame enough to take meal-worms from the fingers. We are wondering whether there will be any trouble when and if the Shamas begin to feed their young as the three Sibias are in and out of the aviary all day long. The latter are carrying meal-worms to a copper-beech tree about two hundred yards away so it seems obvious that they have young.

A pair of *Ruficaudas* and a pair of *Bichenos* Finches were given one of the large bird-rooms with an outdoor flight for breeding purposes, but nothing happened, though the *Ruficaudas* made some attempt to build a nest. We came to the conclusion that the *Bichenos* Finches were worrying them, particularly as the cock *Ruficauda* was very inclined to be spiteful towards the *Bichenos* Finches. As soon as the latter were moved into an aviary on their own, the *Ruficaudas* built a nest and laid two eggs, but the nest was so badly built, in fact it was difficult to find any entrance at all, that the hen could not sit. We pulled this nest out of the tree and they then built a proper one, incubated, and hatched two out of three eggs. One of the young is in excellent condition, but the second does not seem to have grown its feathers properly yet and has some difficulty in flying.

At the same time the *Bichenos* Finches reared three young, all of which are doing well. We have never tried giving these small Finches their liberty, though on occasions, when the door has been left open accidentally, there have been as many as twenty Waxbills loose in the garden and we have found no difficulty in catching them up again.

There seems no reason why they should not have the same homing instincts as their larger brothers.

Probably the *Sibias* will be left out during the winter ; the young, of course, will be caught up. We did this successfully before, and as they are so hardy no ill came of it. They invariably roosted in the aviary.

A pair of East African Manikins (we are not sure which species) built a nest in a privet hedge. Unfortunately the hen died suddenly before any eggs were laid and the post-mortem examination showed the oviduct full of eggs but certified the cause of death as anæmia. A pair of the larger White-cheeked Bulbuls made some attempt to build but have now given up all ideas of breeding. The Black-chinned Yuhinas have now an aviary to themselves, but it is probably too late to hope for success this year. The one young one hatched last year had to be destroyed after three weeks, as the brain was damaged. With reference to other birds, two Racket-tailed Drongos are in marvellous condition. They are great friends, though as there is no outward sex difference it is impossible to tell whether they are a pair. The most perfect mimics, they welcome anyone to the aviary with the most astonishing noises, anything from the "meow" of a cat to the song of the Blackbird. Not long ago, the gardener took the trouble to get a ladder to investigate the pitiful cries of a puppy which had fallen in between the aviary and a wall. Needless to say, it was only Drongo !

They make the most charming aviary birds and are quite safe, even with birds as small as the Yuhinas. They do well on the ordinary insectivorous mixture, but anything from a small mouse to a grape is appreciated. Heat is necessary in the winter and at that time of the year a little chopped raw meat is good for them. Meal-worms are caught in the most amazing manner and should be given in moderation.

We hope to record the successful breeding of *Shamas* at liberty in the next Magazine.

REVIEWS

SOME BIRDS OF THE LONDON ZOO

This charming little book will be read with great interest by members of the Avicultural Society because it deals with many of the birds with which they are familiar. Mr. Martin Duncan is both a naturalist and an artist and so has been able not only to produce a book containing a large amount of information but has illustrated it with a series of very charming coloured pictures, though some of these are perhaps rather more artistic than strictly accurate as to detail. Twenty-two groups of birds, from the Birds of Paradise to the Cassowaries, are dealt with.

[*Some Birds of the London Zoo*, by F. Martin Duncan, F.Z.S. John Bale, Sons, and Danielsson, Ltd., Great Titchfield Street, W. 1. Price 6s. net.]

THE BIRDS OF MIDLOTHIAN

This is one more added to the excellent series of county histories of the birds of the British Isles that have been published in recent years by Messrs. Witherby, and is thoroughly up to the standard of those that have gone before. It deals with one of the best known districts of Scotland, and represents many years of careful observation by an author whose death prevented his seeing the fulfilment of his work which was completed shortly before he died. But it will remain a worthy memorial to his memory. It contains an excellent map and some fine photographic plates.

[*The Birds of Midlothian*, by J. Kirke Nash, L.D.S., R.C.S.E. H. F. and G. Witherby, 326 High Holborn, W.C. Price 21s. net.]

MR. SETH-SMITH'S TESTIMONIAL

To the Hon. Secretary.

DEAR MISS KNOBEL,

I am quite overcome at the kindness and generosity of the members in presenting me with such a splendid testimonial—a delightful old Chippendale bureau and a picture by my old friend George Lodge. I feel that I have done little to deserve this magnificent present, for it has always been a great pleasure to edit the Magazine and the members have helped so willingly.

I intended to write personally to each one of the subscribers but find that this is quite an impossibility just now as there are so many of them and my time is so very fully occupied.

I want to thank you and Mr. Sherriff especially for all the trouble you have taken over this testimonial and I shall be greatly obliged if you will convey my very sincere thanks to the other members of the Society.

Yours sincerely,
DAVID SETH-SMITH.

CORRESPONDENCE, NOTES, ETC.

FURTHER SUCCESSES AT MYLOR

I thought perhaps you would like to know that I have about half a dozen more Peter's Spotted out from a second nest. It is difficult yet to count as they are so very nervous. The four from the first nest—three cocks and one hen—are magnificent, even look better than the parents. Also I have three Yellow-winged Sugar-birds from the second nest (after laying three clear eggs after the first nest young were reared).

(Mrs.) K. DRAKE.

THE ORNAMENTAL PHEASANT SOCIETY

After an exceedingly enthusiastic inaugural meeting, an Ornamental Pheasant Society has now been formed. *Cage Birds* is to be our official organ, and through this paper the Society will publish its weekly notes. Already it has given us a generous send-off and a special notice of the meeting, which was held at Mr. G. Blay's house at Surbiton, where our host and hostess entertained all those present most lavishly. Few members of the Avicultural Society can be aware of the magnificent collection of birds that Mr. Blay has procured and our host kindly allowed us to see round his extensive grounds.

In due course the names of the officials of the Society will be published in *Cage Birds* and no doubt a summary of the rules and objects of the Society.

This is an opportunity to appeal to all members of the Avicultural Society to join this newly formed society. One of the main features will be to popularize the keeping of Pheasants and to encourage more aviculturists to collect and breed these most desirable and colourful birds. That is in fact our main object, and in no way will the Society be used for the benefit of individuals wishing to join for gaining their own ends. To carry out our projects we intend approaching all the prominent show committees with a view to obtaining a class for ornamental Pheasants. It is also possible that the Society will take a stand at Olympia and show Pheasants, not as individuals but as a Society. We shall arrange to have made suitable cages for purposes of exhibition and these will be lent to members at a nominal price. There will be many other minor motives but all will tend to one common object, namely the popularization of ornamental Pheasants.

The subscription is exceedingly low, a mere 5s., and may we hope that not only members of the Avicultural Society who are interested in Pheasants will join but also all those who are true lovers of birds. Every fancier who keeps and breeds ornamental Pheasants is accomplishing something for which our descendants will have cause to thank us. Perhaps no group of birds in the world are in more danger of total extinction, for it must be remembered that they are not only edible but their gay feathers make them a subject of attack from the natives of all countries in which they live. To mention but one Pheasant, the Elliot (*Syrnaticus ellioti*). Ten years ago this bird was hardly known in England or the Continent: a few specimens found their

way to England and France. Two gentlemen in particular bred these successfully and to-day they are not uncommon: many specimens have been exported to America where they are now also established in aviaries. In all probability the Elliot Pheasant is now safe for all time. This example is mentioned just to point out that everyone who joins the Society will be doing something towards helping us to fulfil our ambition, namely the keeping and breeding of ornamental Pheasants.

Is it too much to expect a most hearty and spontaneous response to this appeal for your support?

We want not only the financial help of your members but still more so the moral support from you as members of the largest avicultural society in the world. It may be added that we shall welcome members from all parts of the globe.

The subscription of 5s. should be sent *to-day* to our Secretary, Miss J. M. Grant-Ives, Wellesbourne, Warwick.

We thank you now.

P. J. LAMBERT.

BREEDING THE CEYLON BULBUL

Members will be interested to hear that after years of disappointment in breeding I have been able to bring a Ceylon Bulbul to maturity.

I learn from Mr. George Brown, of Ceylon, and further, through him, from Mr. Ezra, that these Bulbuls have a habit of rearing their young for two or three days and then pitching the young brood out of the nest. This has been my experience.

My wife brought home two of these Ceylon Bulbuls when very young, and they became so tame on the voyage home that they were permitted to fly about the cabin with the door and port shut, and she found no difficulty in feeding them.

We have found the very greatest difficulty in our attempts the last few years to bring the young ones to maturity, owing to the feeding, but this time we segregated the parents from other tropical birds which we have in the aviary and they fed the young ones on currants, fruit, meal-worms, etc. They were particularly keen on meal-worms.

The young one is now flying about the aviary and is a very "hardy young person".

I further understand from Mr. G. H. Brown that in years gone by the Europeans in Ceylon described these birds as the Ceylon Nightingale, and it is so referred to in Persian poetry. Although not a first-rate singer, it certainly has a very pleasant, homely chirruping warble, and at times is a very good mimic.

W. SHAKESPEARE.

BIRDS OF A TASMANIAN GARDEN

One of the first birds a new-comer to Tasmania will notice is our old friend the Sparrow; there is no need to say anything about him beyond the fact that he has thrived and increased to such an extent that he has become a pest.

Really beautiful birds are the Robins, the Scarlet-breasted, Flame-, Pink-breasted, and Dusky, the latter being without the beautiful red colouring of the other kinds.

Then the really beautiful Blue Wrens, with their brilliant blue feathering, and the curious and much more rare Emu Wren.

Beautiful as all these birds are, I cannot remember seeing one of them in captivity either here or in their native country. A difficult task to import the Wrens, I imagine, but surely the Robins could be brought. Looking back on the years I spent in Tasmania the only small bird commonly kept in a cage was the Zosterops, but by that name I doubt if anyone in Tasmania would know the bird, as everyone called it the White-eye. There used to be a shop—a fishmonger's—in Elizabeth Street, Hobart, where birds could be bought and the best Zosterops could be bought for a few coppers.

Very plentiful in the gardens around Hobart is the White-backed Magpie, a handsome bird and thought highly of by Tasmanians. He lacks the long tail of his English namesake and in build is more like a Crow or Jackdaw. It may be seen in large numbers following the plough in the orchards around Hobart, and they must rank as great friends of the farmer.

The commonest bird kept as a pet is the Galah, although it is not a common bird in a wild state there, most of them being sent over from the mainland of Australia. Some are quite good talkers, and quite young birds, little more than nestlings, are bought each season for half a crown a head. The Rosella is another bird often kept as a pet, usually in a rough box with a piece of netting roughly nailed over the front. At the shop already mentioned I once purchased a really fine specimen of the Mealy Rosella for the absurd price of half a crown. What would such a bird fetch in England to-day?

In the South of Tasmania the local boys were fond of keeping a small dingy green Parrakeet similar in colour to a hen Madagascar Parrakeet. The name of this bird I cannot now recollect, but locally they were termed "Green Parrots". Another Parrakeet in demand by youthful bird lovers was a more gorgeously coloured bird known to their youthful owners as "Yellow-bellies". The "Green Parrot" would descend in small flocks on the cherry trees in the Huon district and feed on the fruit, while on the ground the observer was showered with the juice. This happened to me while living on the Huon River in 1912.

During some years spent in Tasmania I cannot recollect seeing a Budgerigar either wild or caged, and speaking from memory I never heard it called Budgerigar, but either Shell Parrot or Grass Parrot. Another bird known to us as the Cockatiel was always called the Cockatoo Parrot both in Tasmania and on the mainland of Australia.

A bird never heard of in England, at least to my knowledge, is the Mutton Bird, a species of Petrel. Thousands of these birds are killed and salted or pickled in barrels and eaten by people who informed me they were very tasty. I sampled one but the strong fishy flavour and oily flesh convinced me that a little would go a long way. On another occasion I met a party in the bush and was invited to join in their meal. I sampled the stew but could make no

impression on the meat, which seemed to me to be very tough, tasteless stuff. It appeared some of the party had been out shooting and had bagged several White Cockatoos, which had been prepared and consigned to the pot. I never again indulged in these dishes.

On one occasion on the road I was passed by a car with something which I took to be part of a lady's boa hanging from the dickey. I gave chase and told the solitary occupant he was likely to lose the "boa". When he opened the dickey I was surprised to find it stuffed full of Black Swans. It appeared he had had a good day's shooting, but as it was the close season for Swans he did not wish to advertise the fact. I believe he was liable to a fine of £1 for each bird had it been discovered. Before proceeding he insisted on presenting me with a Swan. I strongly dislike plucking and "drawing" birds of any kind, but a neighbour's wife prepared and cooked the bird and I joined them at supper where the Swan was the chief dish and very good it was, though I understand an old Swan is very tough and tasteless.

Several varieties of English birds released in Tasmania have established themselves there and my chief favourite was the Skylark, which seem to be in considerable numbers around Hobart.

J: C. BENNETT.

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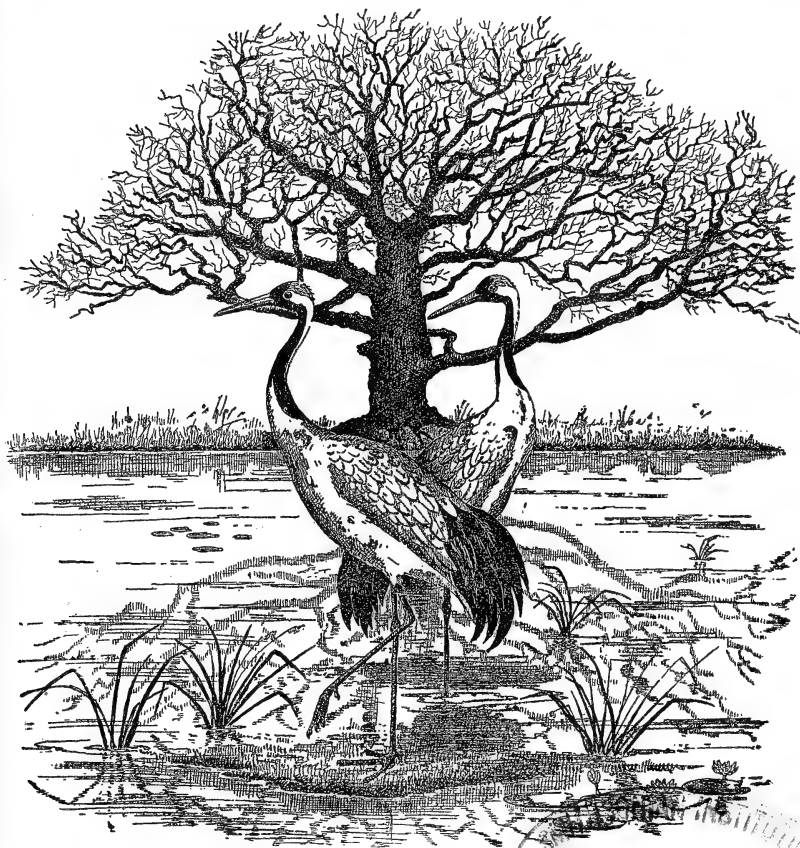
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CONTENTS

	PAGE		PAGE
Construction of an Outdoor Flight for Budgerigars, by FRANK W. HANSELL (<i>with plate</i>) . . .	241	Grey Lag Geese, by SETON GORDON	258
Breeding of the Royal Parrot Finch, by C. H. MACKLIN . . .	245	Hand Rearing of the King and Pennant Parrakeet, by A. MARTIN	258
The Evils of Mass Importation and some suggested Remedies, by J. E. SWEETNAM	248	Breeding Activities of Foreign Doves, by CARL NAETHER . . .	260
Gentlemen Only, by EDWARD BOOSEY (<i>with plate</i>)	250	Correspondence, notes, etc.: The Parrot Ban; Aims of the Society; Waxbills; The Red and Yellow Macaw; Correction	262
Chaffinches and Bramblings in Captivity, by DR. E. HOPKINSON	256		



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VIEWS SHOWING AVIARY AND FLIGHT.

Frontispiece.]

THE AVICULTURAL MAGAZINE

THE JOURNAL OF THE
AVICULTURAL SOCIETY

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DETAILS FOR THE CONSTRUCTION OF AN OUTDOOR FLIGHT FOR BUDGERIGARS

By FRANK W. HANSELL

In the issue of the Magazine for April, 1935, pp. 108-112, I endeavoured to describe how to make an outdoor aviary for Budgerigars. The following is a brief description of the construction of the flight used in conjunction with the aviary.

When building the flight one or two factors have to be borne in mind, i.e. the general appearance must not be unsightly, the building must be substantial and yet not be too cumbersome so as to obscure a good view of the birds.

It may be seen on the plan (Fig. 1) that the flight has a length of 14 ft. 2 in. and a width of 10 ft. 9 in. The height being 7 ft. 4 in., as shown on the elevation (Fig. 2), this gives an area of approximately 1,110 cubic feet, after allowing for the attendant's entrance.

Commencing with the actual construction, the first procedure was to erect seven larch poles, each 8 ft. 10 in. by 5 in. by 4 in., at the points as shown on plan. The thick end being embedded 1-6 inches in the ground, this leaves 7 ft. 4 in. above the surface. When filling in the holes at the foot of the poles, it is essential that the soil be well beaten in, and that each pole is set perfectly perpendicular. If white wood poles are used in place of larch, the bases would require to be well tarred. To form a wind break and shelter for the birds, four

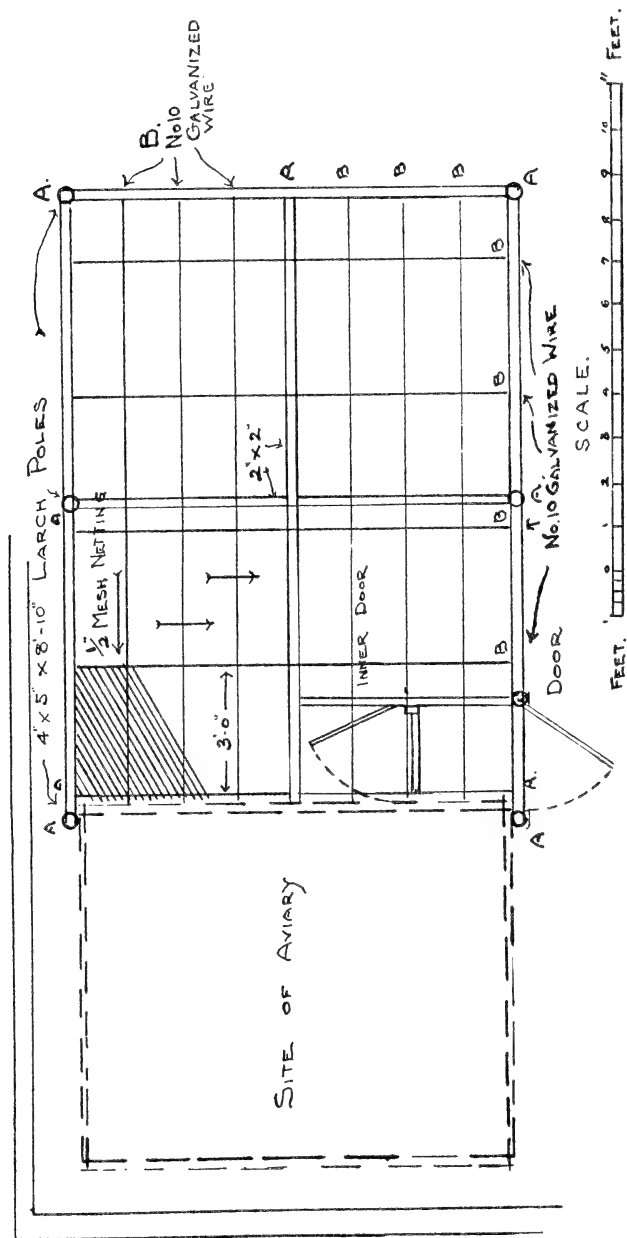


FIG. 1.—Plan of Flight.

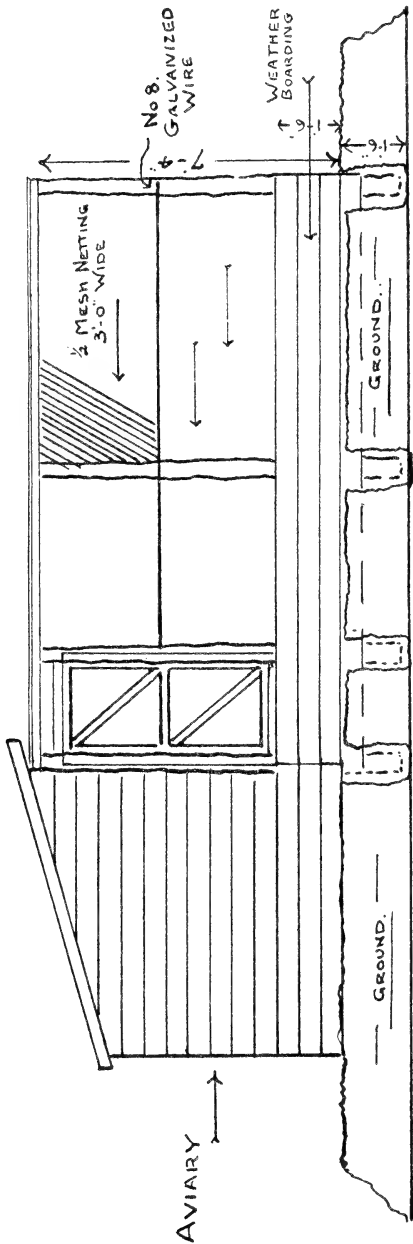


FIG. 2.—Elevation of Flight.

6 by $\frac{3}{4}$ in. weather boards are nailed to the outside edges of the larch poles, round the three sides of the flight. One of the boards is sunk below the surface of the ground to act as a retaining board for sand, etc.

It might be mentioned at this point that the flight was treated in the same manner as the aviary, having $\frac{3}{8}$ in. mesh netting on all sides, this being let into the ground for 15 inches and stapled to the board already referred to. This prevents vermin getting access to the interior of the flight.

On top of the poles 2 by 2 in. bearers are nailed, also across at points lettered "A" on plan (Fig. 1).

As a matter of convenience for the attendant entering and leaving the flight, it was thought advisable to have a double entrance, to preclude birds escaping. A small piece of the flight is taken off, as shown on plan, and a doorway formed, the door being hung on a 3 by 3 in. upright, which is braced with 2 by 2 in. batten at the top and bottom, to the aviary and pole. This inner doorway is, of course, not a necessity, but proves well worth the little extra time in making.

Before putting on the $\frac{1}{2}$ in. galvanized wire netting, lengths of No. 10 gauze galvanized wire should be stapled on to the framework at points "B" as shown on plan. The netting may now be laid on in the direction of the two arrows, and securely stapled to the top of the 2 by 2 in. batten, the netting being laced on to the No. 10 wire strands with No. 18 gauge wire. This makes a tight joint between each width of netting. It should also be given an occasional lace to the wires running in the opposite direction: this eliminates sagging in wet or snowy weather.

The netting round the sides should be put on in the same manner; the wire to which it is laced is No. 8, and a small ratchet is used to keep it taut.

On top of the 2 by 2 in. batten and netting, on the whole length, are small plates 3 by $\frac{1}{2}$ in. to exclude water. The doors are made up with 2 by 1 in. framework, and netted. On the outer door a padlock is fitted. In order that the outer door may fit well, two plates, 3 by 1 in., are nailed on to the larch poles.

The whole of the woodwork is well treated with creosote, which of course should be allowed to dry before the flight is tenanted.

The appearance of the flight and aviary may be seen from the photos far better than it can be described in words.

In this particular flight half of the ground area is laid out in grass, which is allowed to seed, the other half being sand. One or two small bushes and trees are also provided. The birds can then select from these perches most suited to their own individual liking.

BREEDING OF THE ROYAL PARROT FINCH

By C. H. MACKLIN, F.Z.S., M.R.C.S., L.R.C.P.

In April, 1934, I obtained from Messrs. Goodfellow & Mayer a pair of Royal Parrot Finches from the first importation. They were young birds and one still in juvenile plumage with the blue head, but they turned out to be a true pair, although the sexual difference did not show clearly until their first full moult nearly a year after I obtained them. Then it was quite easy to see that the cock had considerably more blue than green in the body plumage in comparison with the hen and his red head was distinctly brighter; the red also extending a little further back on the nape in the cock bird.

When I first got them their wings were badly frayed, but they were so wild in a cage that I decided to risk it and put them in an outdoor aviary; here they spent most of their time climbing and hopping about in the shrubs and soon the cock bird was flying well, but the hen was rather weak on the wing. By the end of the summer they had grown new flights and were both in very good plumage, but had made no attempt whatever to nest. They "did themselves" very well, taking large quantities of soft food ("Mosquito"), meal-worms, millet spray, apple and green food, seeding grass, chickweed, and lettuce; they took very little of the ordinary seed mixture of canary and millet.

In October I took them indoors and tried to steady them for show, and did manage to send them to Cambridge, Hitchin, and Leicester, where they took first prizes in their class; steadiness was not one of

their good points, and at Nottingham they dropped to "Commended", for by this time they had worn off a lot of feathers round the beak and broken some of their tail and flight feathers. This was in November, and I then put them in an indoor aviary, where they were much quieter than in the cage, in fact cage life definitely does not suit them. About the end of February they started a good moult which they finished early in April. On 15th April I put them outdoors in the same aviary they had occupied the previous summer.

This aviary was designed for Waxbills with $\frac{3}{8}$ in. mesh wire and consists of a shelter shed with glass front $4\frac{1}{2}$ by 5 feet, $5\frac{1}{2}$ feet high in front and $6\frac{1}{2}$ feet at the back; matchboard sides, boarded floor, and boarded and felted roof; a covered flight with open front and boarded floor $4\frac{1}{2}$ by 5 feet and an open flight 12 by 5 feet. The back of the flight is an ivy-covered wall, and there are growing shrubs of box, euonymus, and prunus; the floor is partly turf and partly a sanded path.

The Parrot Finches had for company pairs of Cherry Finches, Cuban Finches, Aurora Finches, Greater St. Helena Waxbills, Green Avadavats, Lavender Finches, and a cock Amethyst-rumped Sunbird; they were therefore the largest birds in the aviary, but they have always been well behaved, taking very little notice of the other occupants except to get the biggest share of the meal-worms, of which they are very fond.

Within a week of being turned out they began to build a nest and chose for the site a "Hartz" travelling cage hung up in the top corner of the inside shelter farthest from the door to the flight. I had put a wisp of hay in the cage, and they proceeded to fill it up with grass stems, dead leaves, pieces of straw, and fibrous grass roots which they found in the flight. On examining the nest after the young birds had flown I found it was very compactly made; the entrance was in the form of a sloping tunnel which went up about 3 inches to the nest proper. They took about a fortnight to construct the nest and on 15th May I dared to investigate with my finger and could just reach the nest cavity and feel that there were eggs. After this I left the nest severely alone and did not even venture into the shelter. Both birds sat, the hen chiefly at night and the cock during a good part of the day. On 3rd June I heard faint squeaks coming from the nest, and

for the next week the young birds were loud in their clamour for food but were quieter later. The parents fed them frequently, using chiefly the soft food and meal-worms; they also helped themselves to the Sunbirds' nectar quite freely at this time and ate a good deal of apple and seeding grass.

On 9th June I got a peep at the nest while both the parents were out in the flight and, by using an electric throat lamp and mirror, could see that there were two youngsters and that they were just getting their wing and tail quills. On 22nd June they were ready to leave the nest; in fact for a day or two I had seen two little yellow bills at the entrance.

Unfortunately it turned very hot and the temperature rose tremendously inside the shelter where the nest was, near the roof, and one of the youngsters collapsed and died in the nest entrance; the other I found in the outside flight quite strong on the wing: he roosted outside in the ivy and never went back to the nest.

The young had dark green bodies and wings, deep blue heads, and red tails and tail coverts; the beak was orange yellow, ornamented at the corners of a wide gape with four luminous blue spots; feet and legs whitish grey.

Both parents fed the youngster frequently, regurgitating food from the crop in the usual Grass Finch manner. By 25th June he was pecking at spray millet and soon helped himself to soft food. He is now (11th July) quite independent and is doing well. The beak is still yellow but the luminous spots at the corners have nearly gone and he has lost his babyish look and is now as big as the hen.

The parents have built a second nest in the shelter again, but this time in a small wooden box, about 6 by 4 by 4 inches, with half the front open: it is again very compact, made of grass stems, bits of straw, dead leaves, and roots; no feathers were used either time. There are now three eggs and the birds have just started to sit. I am hoping this time to be able to supply some live ant "eggs", which they liked last year and which will probably be better for the young birds than too many meal-worms.

The Royal Parrot Finch is a fascinating little bird but needs care; he does not do well in a cage and will not live on seed alone, for he is

much keener on live food and soft food. The cock has apparently no song, and their only note is a high-pitched bat-like squeak which they use to call to each other.

I hope some other members of the Society will also be successful in breeding this bird, and I should very much like to hear from anyone who does so with a view to exchanging some of the aviary-bred young, if I am lucky enough to breed more than my present solitary one.

THE EVILS OF MASS IMPORTATION, AND SOME SUGGESTED REMEDIES

By J. E. SWEETNAM

While the contents of Mr. C. S. Webb's article on "The Parrot Ban and the Future of Aviculture" in the August number of the Magazine are not likely to find favour with all interested in foreign birds, I believe the writer's sentiments will be echoed by most members of our Society. As one who suffers many qualms of conscience about this matter of importation, I feel I can do no other than express agreement with Mr. Webb's main contention and, in so doing, put forward some suggestions for combating the abuse.

That, as Mr. Webb points out, these abuses must sooner or later have the effect of drying up the supplies upon which we are so largely dependent is, in itself, a serious consideration but, in my opinion, it is much more serious that we should be, as at present, lending ourselves, however unwillingly, to their continuation.

The truth is that the natural desire to secure some rare specimen induces many of us to be less particular than we should be of the conditions under which such birds come to us. In too many cases, I fear, inquiry would reveal the fact that our prized possession was one of a considerable number, many of which perished en route, and all of which were packed and imported under conditions qualified to give the "cranks" a whip to beat us with.

For this matter of importation is the Achilles' heel of Aviculture, and leaves those of us who occasionally speak or write on the subject open to attack by anyone aware of this weakness in our armour.

On all other points we are, I believe, invulnerable, and it is the greater pity we should thus be left open to attack by those "dear good people", whose zeal is often so much greater than their knowledge. To "suffer fools gladly" is never easy, especially when they speak as though they themselves were the only people in the world with any solicitude for the welfare of birds and beasts, but that difficulty is increased when, all the while, one has an uneasy feeling that there is "some method in their madness".

Now for the suggestions—which I am well aware are open to criticism and which, indeed, are put forward with that hope and expectation :—

(1) More concentration of the building-up of strains of aviary-bred foreign birds, so as to be *less* dependent on importation. A good deal has already been done in this direction with certain species such as Zebra, Parrot, and Gouldian Finches. As instanced in the case of Cockatiels and other Parrot-like birds, the practical difficulty lies in securing fresh blood, and so avoiding the evils of inter-breeding, but it should not require much organization to overcome this difficulty by arranging exchanges between members.

Apart from the rather haphazard method of advertising in the Magazine we have no machinery for the exchange of species. In my opinion we need a list of members who specialize in any particular species, and from whom other breeders could, when necessary, secure a change of blood. For instance, I am at present building up a strain of aviary-bred R.H. Parrot Finches, but I have no means of knowing what other members of the Society are doing likewise.

(2) The compilation and distribution amongst members of a list of dealers and importers who are known to import their birds under proper conditions, so that our members could secure their birds through them with a clear conscience.

(3) I put this last, as the most controversial of all : The formation of a committee of members (or a sub-committee of the Council) to consider the possibility of arranging for direct importation for the benefit of all members who desire to avail themselves of it. We may not be a very large Society, but I venture to suggest that we are sufficiently large and responsible to be in a position to secure consign-

ments of birds in this way with far less difficulty than would be experienced by individual dealers and importers. The price might be higher, but I am sure I speak for the majority of members, as well as for myself, when I say that we would prefer to pay more for birds about the manner of whose importation we had no qualms.

If such a co-operative scheme *could* be introduced it would have the additional advantages of providing us with birds in better condition, because more carefully packed and better treated en route ; and also of bringing within the reach of our members many of those species now almost unobtainable because the ordinary dealer or importer has, perforce, to supply a demand, and that demand is mostly for the better-known species.

There must be a very considerable number of species suitable for aviculture which have never yet been imported—and never will be, so long as birds are only brought over to meet an existing demand.

A collector, acting on behalf of a society most of whose members are only too anxious to secure and experiment with new species, and in co-operation with an importer or importers sure of a demand for such rare birds, should be in a much better position to secure them. It will be seen that, apart from practical difficulties, about which I am not qualified to speak, the success of any or all of these suggestions depends upon the extent to which we, as members of a society, are prepared to co-operate for our mutual advantage, and in order to mitigate an abuse which, I feel confident, must be a source of considerable heart-searching to many others besides myself.

GENTLEMEN ONLY

By EDWARD BOOSEY

To a person possessing but one naturally planted aviary it is always rather a problem to decide what selection of birds to house in it.

If one is going in exclusively for breeding, none but the very largest and most thickly planted enclosures can safely contain more than a few breeding pairs with any real prospect of success, though this may be fun for the birds it is less amusing for their owners, for so few

birds in a comparatively large space will be hardly ever seen, giving the aviary a deserted appearance, which is just what I wanted to avoid.

As far as breeding goes my whole time is spent endeavouring to build up breeding stocks of the rarer Australian Parrakeets, and to save the rarest of them from the early extinction to which they seemed doomed in a wild state.

I therefore wanted to make my planted aviary purely a source of relaxation to its owner, unmixed with the anxiety which always accompanies breeding operations, and which in my case would have been doubled, as I should not have had the time to provide sufficient live insects for the young of the insectivorous species I had decided to keep.

The obvious thing was an aviary of bachelors, and this is proving a great success.

The aviary itself is about 35 feet long by 20 feet wide by 9 feet high, constructed of natural larch poles, with, at one end, a shelter shed entirely hidden by a surrounding thicket. The flight was built to enclose part of a lawn and the end of a dense hedge of snowberry which was thinned out to form two or three thick bushes. It also contains rambling roses, jasmine, and honeysuckle climbing up the supporting pillars.

The aviary is close to a lily pool and abuts on to a lawn where we have tea in summer.

When the first of our yearly consignments of insectivorous birds arrived here in the spring, I decided to pick out anything that particularly appealed to me from the point of view of colour or song—or preferably both.

The first occupant of the aviary was a Virginian Cardinal, which I think must have hailed from Mexico as he was rather slim for a Cardinal and of the most amazingly brilliant scarlet, being far and away the best of a particularly well-coloured batch of these birds.

He was turned into the aviary about the middle of April and at once started to sing. His song is what one might describe as “quite pleasing”, though it in no way justifies his alternative name of Virginian Nightingale, since it entirely lacks the uniquely mysterious quality

of the true Nightingale's song, which to be fully appreciated needs to be suddenly heard in a moon-dappled wood, where all else is summer-night silence.

The Cardinal's first companion was a Pekin Robin who had been singing with particular sweetness in a cage, so that the former's perpetual "Chee-ow . . . Chee-ow . . . cheow . . . chow . . . chow . . . chow . . . chow", was now intermingled with the song of the Pekin Robin, which was such a heartening sound during the bitter weather we had in May, and which, I always think, is one of the most joyful little lays imaginable.

The April weather was warm when the Pekin Robin was introduced, and immediately afterwards I turned a Rufous-bellied Niltava into the aviary. I had had him for three weeks or so in a cage in a warm room, during which time he lived exclusively on sweet ripe apples and about seven mealworms a day, disdaining all other food he was offered. When I caught him up to put him in the aviary he had some sort of fit, and I gave him up for lost, but when he was almost dead he made a miraculous recovery by dint of being given, on the end of a small paintbrush, a mixture of egg and milk beaten up with a very little brandy, which incidentally is the most marvellous concoction for saving the life of a bird already *in extremis*.

Having been warned by Mr. Anthony Chaplin that Niltavas had weak lungs, and by Dr. Amsler that they were decidedly "difficult" birds, it was somewhat in fear and trembling that I finally turned him into the aviary.

He proceeded to roost in a low bush and next morning I hurried forth fearing he would probably have pneumonia, but found him none the worse for his night out. Shortly afterwards the weather became really Arctic and there was ice on the pond two mornings running.

I determined to take the Niltava in again, but he looked so well I delayed his removal indoors, and the extraordinary thing is he not only continued to look well, but he actually improved during all that bitterly cold unpleasant weather.

Quite probably he is a particularly "tough" specimen of a Niltava, but even so I think his survival of about the worst our climate



MR. BOOSEY'S PLANTED AVIARY AT KESTON.

can do in the way of sudden changes does show how enormously even the most notoriously delicate birds benefit from plenty of fresh air and exercise as opposed to coddling in a hothouse.

A striking example of this was a consignment of Painted Finches—the genuine article *Emblema picta*—which arrived here in March. They were doing so badly in a large cage in our acclimatizing room, whose temperature never falls much below 70° in winter, that in desperation I turned them out into an aviary with a heated shelter. In this, though they persisted in spending most of their time out in the wire run in anything but genial weather, they rapidly improved and are now all in perfect condition.

To return, however, to my bachelor aviary: The Niltava is always listening. He will sit for minutes on end almost motionless with his head cocked on one side and his wonderfully vivid cobalt blue cap and orange russet breast shining in the sun. Then quite suddenly he will jerk his tail up and down, will as it were float swiftly up to one of the larch uprights of the aviary, capture his prey, and be off again with his rapid slanting flight into the undergrowth. After that one often sees nothing more of him until evening, when he usually perches on the highest branch in the aviary to greet the gathering dusk with his miniature twilight song—a tiny silvery cascade of muted bells.

Perhaps the Niltava's extreme reluctance to show himself is his chief drawback as an aviary bird. So much of his time is spent skulking in the thick undergrowth, though even this probably adds to the pleasure one has in seeing him when he does sometimes come out to sit in the sun.

If Niltavas seldom show themselves, however, this applies even more to two other and later editions to the aviary—the beautiful Rainbow and Versicolor Buntings. Incidentally, I had no idea until I actually saw the latter, which is one of the rarest of the Buntings, how extremely lovely he is with his perfectly blended blues, mauves, and purplish reds. Most of the illustrations I have seen make the bird appear a sad mess of jumbled jarring colours, though in fairness to the artists one should own that a Versicolor must be a difficult bird to do justice to on paper.

The other two representatives of the Bunting family in the aviary are an American Nonpareil—a lovely bird when first imported, but too often losing his original bright scarlet breast colour in captivity—and an Indigo, the beauty of whose blue livery is sufficiently vouched for by the fact that the Niltava deigns to treat him as a rival and chases him about—though with no serious results—if the two happen to meet.

This habit birds have of chasing about and treating as rivals other birds generically unrelated to them, but possessing the same colour scheme, has been frequently observed and is not hard to understand. A Shama, which sang very sweetly when first put in the aviary is now moulting hard and is seldom seen—preferring apparently to spring the full glory of his long black and white tail as a dramatic surprise on his companions, rather than to risk an anti-climax by appearing among them with it but half grown.

Whether he will be a bully later on I cannot tell, but at present he is, naturally, quite peacable. A Giant Whydah is just in the process of doing his miraculous transformation scene from a large dull-coloured Sparrow-like bird to a fantastically beautiful creature of glossy black, relieved with red shoulder patches and graced with a many-shafted tail of inordinate length which undulates in flight with a gracefulness of which the bird seems well aware, as he flies to and fro in the aviary with matchless, if a trifle self-conscious, buoyancy.

He has made a sort of playground on top of one of the bushes and does mysterious and engrossing things there, puffing himself up the while and singing all the time with apparent terrific effort but no audible result except a somewhat harsh grating sound.

A Blue-winged Siva—a pleasing little *café au lait* and pale blue bird—hero-worshipped the Pekin Robin from the start, but the latter was, at first, somewhat bored by his attentions and obviously disliked being constantly followed about by his adoring companion. Now, however, the two are friends even to the extent of being on preening terms, indeed, it's quite possible that the Blue-winged Siva is a hen and has no rightful place in my bachelor aviary, for the sexes are hard enough to distinguish!

Whether or no the Siva is a hen he (or she) is certainly the embodiment of energy and approaches more nearly than anything else I know to my idea of perpetual motion. No matter how hot the day the little Blue-winged Siva can always be seen flying tirelessly from end to end and across the aviary, followed almost languidly by his Pekin Robin companion who is himself no sluggard, and expertly catching any small insects that happen to come his (or her) way. Nor does its energy quickly abate, for it is just as active even in the twilight, and I can only hope it roosts quietly at night otherwise I feel sure it would be a ripe candidate for a nervous breakdown !

A Golden-fronted Fruitsucker is a tease rather than a bully, and has necessitated my putting several pots of the same kind of food in different parts of the aviary. He never actually molests the other birds but, like Sunbirds, loves to take up a point of vantage and drive them away from the food pots from sheer mischief.

The Mexican Yellow Grosbeak is rare and in many ways the most attractive bird in my planted aviary. He arrived here as the sole member of his genus among a lot of other birds, and I picked him out to keep at once because he satisfied my senses both of the sublime and the ridiculous. His song will, I feel sure, one day be sublime—it consists at present of a few short but mellow notes—and his form is gloriously ridiculous—like a child's wooden toy painted in bright yellow, black, and white, with an enormous beak worthy of a Puffin. He could easily do frightful havoc with that formidable beak of his, but actually he is a clumsy and sedate and amiable and altogether lovable bird, and I have left him to the last because he is so attractive.

I hope these random notes of mine may be of some assistance to those who possess but one planted aviary and are wondering what selection of birds they should put in it.

CHAFFINCHES AND BRAMBLINGS IN
CAPTIVITY

By E. HOPKINSON

CHAFFINCH (*Fringilla cœlebs* Linn.)

The authorities say that it has often been bred both in cages, outdoor aviaries, and bird-rooms. The earliest British record I know is Croker's in 1914 (*B.N.*, 1915, 341), but no doubt they had been bred before.

Mr. Meade-Waldo told me (*in lit.* 25-1-1930) that he bred the Canary Islands' race, *F. cœlebs canariensis* V., about 1905, and Mr. Blaauw wrote, 5-4-33, that he had bred the Algerian race, *F. c. spodiogenys* Bp., in his aviaries at Gooilust, Holland, "many years ago."

*Hybrids*¹

CHAFFINCH × GREENFINCH

Recorded in Page's book and in *B.N.*, 1912, 216. Paterson gives an account of one hatched and fully reared in a garden aviary in 1911.

CHAFFINCH × BRAMBLING

First bred by Miss Reeves in Kent in 1906; on this Allen Silver writes (*B.N.*, 1907, 174), "Miss Reeves reared two in 1906. . . . This year she has continued her experiments on a larger scale . . . (and has) already about a dozen young birds fending for themselves. They have been bred both ways . . . were reared in wild nests." (See also under BRAMBLING.)

CHAFFINCH × CANARY

Teste Page, who probably based his statement on *A.M.*, 1908, 241, where Alys Gorter writes that she (or he) has one young hybrid alive and sends a dead one for examination. Of the correctness of the identification, the Editor (Dr. Butler) is doubtful. Another case of the same kind has been recorded in Germany.

¹ At the Crystal Palace Show, December, 1903, was exhibited a bird described as a cross between an English Chaffinch and an American Nightingale hen, one year old. I remember the bird well and noted at the time that it looked exactly like an ordinary hen Chaffinch.

BRAMBLING (*Fringilla montifringilla* Linn.)

Three were reared by Suggitt in 1916. See *B.N.*, 1916, 292, and 1917, 234; the last being a full account of the event by the breeder. This appears to be the only record of success, for Neunzig says, "not yet bred." ¹

Hybrids

BRAMBLING × CHAFFINCH

This cross was bred by Reeves in 1906 (a good number) and House about the same date. Allen Silver writes of Miss Reeves' successes, in *A.M.*, 1911, 34, that the eggs were collected from a large aviary, which contained opposite sexes of the two Finches, and hatched and reared in the nests of wild Robins, Hedge Sparrows, Great Tits, etc., in the neighbourhood, the young hybrids being removed from these before they flew. Since 1907 at least twenty of these hybrids had been reared to maturity. With the article appeared a coloured plate showing both sexes of the cross, and in a note to it the Editor says that "Mr. John House of Dundee bred five Brambling-Chaffinch hybrids six years ago". In the Reeves' case one has to realize that captivity played but a minor part, as only the pairing, egg-laying, and final rearing took place there. Both Vale and Page include the cross in their lists, and the former says that such hybrids are fertile, but on what authority is not stated, and in any case he was probably referring to wild bred hybrids.

A more recent record of the rearing of a Brambling-Chaffinch hybrid is reported by Sweetnam in *A.M.*, 1932, p. 179.

The cross the other way was also bred by Miss Reeves (*see under* CHAFFINCH).

¹ Mr. Merriman, of Chesham, tells me in a letter (*October*, 1934), that he knows of a recent success with Bramblings; a Mr. Carr told him that he had bred, reared, and moulted Bramble Finches in 1934, and that one, a hen, had been exhibited. I hope this was, or will be, put on record somewhere.

GREY LAG GEESE

By SETON GORDON

In April, 1933, my wife and I were presented with a pair of Grey Lag Geese which had been netted.

When they first arrived the birds, which had had their wings cut, were very wild, and both escaped from their enclosure. One was found and returned to us, the other, although we had reports of it from an island several miles away, was not seen again by us.

We made a grassy run for the surviving Goose, and in a couple of months it became tame. At the end of the summer it was allowed its liberty, and used to return each night to its shelter. By this time its wings had grown, and we decided that, as it had lost its mate, we would not attempt to keep it longer. In October the wild Geese arrived on the windswept heights of northern Skye, and flew over our house, calling, several times a day. For the first few days our Goose went off with the wanderers during the day, but returned at night to us. Then one day it was missing at nightfall from its usual quarters, and we knew that it had joined the wild geese and had entered into that fuller life for which it had doubtless longed.

[We are very grateful to Mr. Seton Gordon for sending us these notes. They are particularly interesting because the writer, in addition to being a first-class ornithologist, has a literary style of rare perfection.—EDITOR.]

THE HAND REARING OF THE KING AND
PENNANT PARRAKEET

By A. MARTIN

On taking over the management of Mrs. Dunn's collection of foreign birds at The Nash, Kempsey, I found a fine pair of the King Parrakeet. I was informed that during last summer two clutches of eggs had been laid, but that the hen always deserted the eggs when on the point of hatching. This year I gave them a new enclosure, with several nesting logs, and hoped for better results. However, they

would have nothing to do with the nest-boxes, and during May three eggs were laid on the ground of the outside flight. The hen sat quite well, and my hopes rose day by day as hatching time came nearer ; but, alas ! they were suddenly dashed to the ground.

Early one morning I found that once again she had deserted : the eggs were quite cold. I left them a while longer to see if she would return ; but no such luck, so I gathered up the eggs and, placing them in some lukewarm water, found that one of them at least contained a live chick. What could I do with it ? I had no other birds sitting at this time except a pair of Pennant's and I dare not risk interfering with these. I was just about to throw the eggs away when suddenly a Silky Bantam cock began to crow. The Silky hen was incubating some Quails' eggs, so under her went the King's eggs. Three days later one hatched out ; the other two contained dead chicks. I took away the young one and placed it in a brooder which I had fitted up for the birds in case of egg-binding. With the aid of an incubator lamp I was able to keep a regular temperature of 85°. Next day the chick was quite strong, so I commenced to feed it, mixing up the following mixture : Equal parts of soaked pea-nuts and sunflower seed ; half part of grated apple ; a small quantity of Horlick's Malted Milk ; chopped up milk thistle, and a pinch of Marmite. This was moistened with the yolk of an egg and, placing the mixture in the mouth, I chewed it up to a milky pulp and fed the little bird from the mouth. It took its food quite readily. I placed the chick in a flower pot with a small quantity of decayed wood at the bottom. All went well ; the chick began to grow and was quite strong.

At twelve days the eyes began to open and at sixteen days they were wide open ; feathers also began to make their appearance, and I had great hopes of a successful rearing. At three weeks it was fairly well covered with feathers. I then thought it advisable to place it in a nesting log, so I got one that is used for small Lovebirds. It continued to grow, and I was highly delighted. I used to write to my employer every few days telling her how the bird was progressing : she was away from home at the time. All went well for a few more days and then came disaster. Somehow during the night it managed to crawl out of the log, and next morning I found it floundering on

the bottom of the brooder. In falling it must have hurt its legs, for it could not stand. I kept it alive for a few days longer, but I could see that even if it lived it would always be a helpless cripple, so I had to destroy it. What a pity ; it deserved a better fate. Thus ended our hopes of a young King this year.

The Pennant's, a fine breeding pair, laid seven eggs. Six hatched out ; one of them, however, hatched several days after the others, and it was always rather a weakling, no doubt not getting its share of food. I was almost certain that it would never survive, so I decided once again to try my hand at rearing it. I took it away from its parents and placed it in the brooder. This time, instead of using the nest log, I made use of a small box with a lid. I meant to have no more climbing out, for I had learnt my lesson. I gave it the same treatment as I had given to the King. It was surprising how quickly it grew. Soon it was as large as its brothers and sisters, which were left with their parents. It is now able to feed itself, and is quite strong and a good flyer. It is never so happy as when it is being petted, and likes to perch on one's shoulder.

BREEDING ACTIVITIES OF FOREIGN DOVES

By CARL NAETHER

INDIAN GREEN-WINGED DOVE (*Chalcophaps indica*).—A breeding pair of these handsome but shy birds was kept in an aviary with some Finches, Canaries, and Diamond Doves. Not until the second year did they nest ; then in a semi-dark corner. Always the bird sitting on the nest would fly off at my approach, no matter how gently I entered their aviary. Their first setting of eggs came on 14th May, and on 31st May one squab hatched, the other egg being infertile. I was very agreeably surprised to find the parents very solicitous about the youngster. This was the case even after he left the nest on 15th June, when he was hardly able to fly. On 29th June he was feeding himself ; at night he always slept huddled close to his father. The outstanding characteristic of this pair of Green-wings is that they are shy birds, but excellent parents.

On 20th June I found the second setting of eggs which, however, was left three days later when a 5-ft. gopher snake, which incidentally devoured three Canary nestlings, disturbed all the occupants of this particular aviary. Fortunately I caught the snake promptly. The third setting of eggs came 1st July. The male Green-wing still guards the now full-grown youngster very jealously, fighting off other Doves and Quail very determinedly. On 5th July the pair was transferred to a more sheltered aviary, and by 10th July I saw the male carrying nesting material. The fourth setting of eggs was laid 18th July.

CAPE (OR HARLEQUIN) DOVE (*Aena capensis*).—Their breeding record thus far reads as follows :—

8th May, first setting of eggs. 12th May, eggs destroyed when Mexican Ground Doves endeavoured to take possession of the nest. 13th May, transferred Cape Doves to aviary where they had only some Shaft-tail Finches for company.

19th May, second setting of eggs. Two young hatched 5th June. On 11th June I found both young, which were partially feathered, dead near the nest-box, one slightly injured.

22nd June, third setting of eggs. 10th July, two young hatched. These I found dead on 24th July, the cause being starvation. At this writing (28th July) the old birds are beginning to nest a fourth time. If at all possible, I shall try to use Diamond Doves as foster-parents for the young Cape Doves.

GALAPAGOS Doves.—Of the fifteen varieties of foreign Doves in my aviaries, the Galapagos are by all odds the “fightiest”. Kept at first with a pair of Australian Crested Doves, it was but a very short time before the Galapagos fought them so continually that I had to separate the two pairs. While the two pairs were together the Galapagos had the following breeding record :—

Laid first time on 20th March ; deserted 23rd March.

Laid second time 1st April ; deserted 8th April.

Laid third time 10th May ; deserted 15th May.

Laid fourth time 20th May ; deserted 23rd May.

Laid fifth time 9th June ; deserted 13th June.

When the Galapagos were separated from the Australian Crested Doves, they laid for the sixth time on 26th June, only to desert the

eggs on 4th July. During all these "sittings" they used but two nesting places, both largely hidden from view. On 11th July the seventh setting of eggs was deposited, and on 25th July two young hatched. This is the first time that this pair of Doves has had young. At this writing the female is frequently off the nest to fight the male unmercifully, so that I had to remove him temporarily from the aviary. The moment she found that the male was gone she returned to her as yet tiny youngsters.

One of the most important and difficult problems is to find Doves which will serve as foster-parents. Some Dove fanciers use Ringneck Doves with reasonably good success; others the California Mourning Dove. It seems that as soon as the Ringneck Doves discover that the colouring of their offspring is dark, they leave them. Some breeders have overcome this negative tendency by placing the nest-boxes of these foster-parents in such dark places that the birds cannot detect the colour of the young until these have left the nest.

Recently a shipment of the Martinican (or Aurita) Doves (*Zenaida aurita*) found its way to California, being disposed of at from \$20 to \$25 a pair. It is claimed that this is the first importation into this country.

CORRESPONDENCE, NOTES, ETC.

THE PARROT BAN

A moment's consideration by those who are antagonistic towards the opinions and suggestions put forward by Mr. Porter in his excellent article on the Parrot Ban, should suffice to convince them of the elementary fact that, had it not been for the type of dealer to which Mr. Porter refers, psittacosis and the Parrot Ban would be unknown.

Any legislation for the prevention of cruelty to birds by this type of dealer is denounced by those who mistake it for an attack on Aviculture, but more generally by those who claim to be bird lovers, who refer to birds as "our feathered friends", and whose chief argument appears to be that it is not as cruel as fox-hunting.

As your correspondent says, the matter is one of great importance to aviculturists, therefore, I say, Mr. Porter's article was well worthy of inclusion in the Magazine.

J. J. YEALLAND.

I would not trouble you with another letter, but that the matter is so serious to aviculturists.

The article on Aviculture in this month's issue of the Magazine seems so disloyal to bird-keepers that it cannot lightly be passed over.

If the writer *knows* that bird dealers import these birds in a cruel and disgusting manner, why does he not either charge the dealer or dealers with it or lay the matter before a committee of the Avicultural Society, who could surely reprimand the guilty one. What is the use of writing indefinite abusive letters to the papers?

Prejudiced people simply use them as powerful propaganda for these virulent and wholly unjustifiable attacks on bird-keepers. I know from experience how utterly unreasonable and wilfully blind these people are. They refuse even to look at a pet bird, and will not listen to what is not only common sense, but a crying need for all bird-lovers to support, as unless Aviculture does come to the aid of Nature, many of our loveliest birds will disappear before advancing civilization.

The truest part of birds is their wonderful love for their homes. My birds are in and out of cages or aviaries most of the time but *never* fail to return.

One tiny Orange Cheek came out with some branches while cleaning the aviary. Nothing was seen of him for three weeks, but the other day the poultry boy ran in and said: "That there little bird is back again and fair blustering to get inside." There he surely was, peering all over for an opening. I let him in and the joy of his song was unmistakable, while he presented me with pieces of hay through the wires. When first put out into the aviaries they will not leave the cages, and for long return to them to sleep.

I think it is extremely bad taste for any one who sells birds, and is after all only a small dealer (that is if he imports to sell), to run down those on a larger scale. It looks so very much as if they wanted the monopoly, and to charge their own prohibitive prices.

Looking back twenty years, when such names as Perreau, Alderson, Whistler, Chawner, Lovell Reay, Peddie, Waddell, Otto Peek, and countless others filled the pages of *Bird Notes* with inspirations and such a joyful loving interest in our birds, these men were a bulwark to Aviculture—the loveliest study in the world.

MURIEL MAXWELL-JACKSON.

THE AIMS OF THE SOCIETY

Mr. Webb's excellent article in last month's issue should stimulate the Avicultural Society once and for all to make an effort and decide definitely what its ultimate objects are, and what advantages it can offer to its members. At the moment it can hardly be said to contribute much that is of value to the science of ornithology, although, vaguely enough, it claims to exist for the study of British and Foreign Birds in Captivity.

It is all very well to say that people keep birds purely for pleasure: there is absolutely no doubt whatever that a time will come when this form of "pleasure" procured at the expense of living beings will be made illegal.

After all, most things in life only become lastingly of interest when some aim and object is kept in view.

There are more ornithological problems to be solved to-day, now that ornithology is becoming a real science, than ever before, and much can be learnt from watching living birds at close quarters and *with intelligence*, that is of the utmost importance in building up the complete history of a genus of species. For example, the observance of the movements or voice of a particular bird in captivity can decide finally whether it shall rank as distinct or not from some closely allied form. Much could be done to solve the problem of the classification of the extraordinary little Finch-like birds of the Galapagos Islands, could we but observe their habits in captivity. Would our pleasure in keeping and breeding them be lessened by the fact that we might be contributing something to science?

Whether "aviculturists", whatever they may be, heartily disapprove of this point of view or not, it is at least to be hoped that they will give it their open-minded and logical consideration.

(Signed) AN ORNITHOLOGIST.

WAXBILLS

I do not know if the following information will be of any use to you, but have been advised to write to you in the hope that the information will be of use in your records.

In an outdoor aviary at the above address, a pair of Golden-breasted Waxbills have succeeded in raising three youngsters and a pair of African Firefinches two youngsters.

Golden-breasted Waxbills.—The hen was bought in May and the cock in June, 1934, and were awarded V.H.C. at the East Ham Bird Show in January, 1935.

They selected a wooden box filled with hay in the open flight, made a tunnel in the hay, and proceeded to cram it tight with feathers. The first egg was laid on 16th May, 1935, but the first clutch of four was infertile. Their second attempt was a failure, the birds being turned from the nest after two eggs were laid, by a pair of Red-eared Waxbills. On 28th June they started again, and four eggs were laid (one each morning), the clutch of four being completed on 1st July. The first two birds hatched on 12th July, the third on the 13th, and the fourth on the 15th, the latter dying on 28th July. The youngsters were jet black, with a little patch of white down on the top of the beak, the inside of the mouth being pearl grey, black spotted; their eyes opened on 21st July and, feathering nicely, the remaining three flew on 1st August, one flying before completely losing its patch of baby down.

African Firefinches.—Hen bought in June, 1934, and the cock in May, 1935.

Nest built exactly the same as the Goldbreasts, but inside the shelter. The first nest of four eggs, 7–10th June, was infertile. The second nest, 1st–4th July, also four eggs, was successful. The first hatched on 14th July, two on the 15th, and one on the 16th: the latter died on the 20th. These young were also black, with a little white spot on each side of beak, top and bottom, a *hen Avadavat* assisting in the feeding of them. Three flew on 1st August, but one unfortunately got wedged behind a cage in the shelter and died of starvation.

My pair of Avadavats hatched two, one dying at one day and the other at eleven days. Their second nest was infertile.

These birds are fed on the stock millet mixture, with an armful of grass seed, chickweed, etc., gathered fresh daily and strewn over the floor of the aviary. I leave this to rot on the ground, and rake it over occasionally for the birds to reach the insects breeding in it. They are also very keen on grasshoppers, which I catch alive and turn loose into the aviary.

The shelter is about 4 by 4 feet, 7 feet high, sloping to 6 feet. The flight is 6 by 4 feet, 6 feet high, and contains two pairs of Canaries, one pair of Gold-breasts, one pair of Red-eared, one pair of Firefinches, and one pair of Avadavats.

Trusting the above may be of some value.

ROBERT D. MORGAN.

THE RED-AND-YELLOW MACAW

Is there any good reason why *Ara chloroptera* should be termed the Red-and-Yellow Macaw, as is done so often by writers? Chloroptera means "green-winged", and there is no yellow in the colour scheme of this Macaw. *Ara macao* has a large tract of yellow on the wing, and is known as the Red-and-Blue Macaw, though Lord Tavistock calls it the Red-and-Yellow Macaw in his book. I should think this latter term would be more appropriate for "macao", while Red-and-Green Macaw would be more fitting for "chloroptera". The New York Zoological Society names it the "Green-winged Macaw", which is perhaps best of all.

In the April number Mr. Housden writes of the "Red-winged Tanager". I wonder which he refers to. I know all of the Tanagers in the United States, and three of them have red wings, but they have red bodies also, and their red tails are as noticeable as their red wings. These are the Summer (*Pyrantha rubra rubra*), Cooper's (*P. r. cooperi*), and the Hepatic (*P. hepatica*). He also writes of them as "little" Tanagers, but as they are $7\frac{1}{2}$ inches in length and over, that term is hardly appropriate. He may refer to some bird entirely different, but it has intrigued my interest.

Your Jubilee number deserves congratulations. It is beautifully prepared, and the plates by Roland Green are superb, as always.

KARL PLATH.

CORRECTION: INDIGO BUNTING \times NONPARIEL HYBRIDS

In "More Additions to Breeding Records" (AVICULTURAL MAGAZINE, 1924, p. 312), there is a bad slip on my part, which in the interests of accuracy I must correct.

I wrote: "*a.* INDIGO BUNTING \times CANARY." This should read: "INDIGO BUNTING \times NONPARIEL," for this was the cross bred by Mr. Thomasset, which was still alive in 1929.

The records of Indigo \times Canary crosses are not too good.

E. H.



MEMBERS' ADVERTISEMENTS

The charge for Members' advertisements is ONE PENNY PER WORD. Payment must accompany the advertisement, which must be sent on or before the 20th of the month to MR. T. H. NEWMAN, 46 FORTY AVENUE, WEMBLEY PARK, MIDDLESEX. All members of the Society are entitled to use this column, but the Council reserves the right to refuse any advertisement they consider unsuitable.

SALE AND EXCHANGE

PAIR Vulturine Guineafowl, three Stanley Cranes.—WORKMAN, Windsor, Belfast.

IMPEYAN, Swinhoe, and Golden Pheasants for sale, or would exchange cocks for hens; also Cockatiels, Budgerigars, and various Doves.—SPENDER, Yew Court, Scalby, Yorks.

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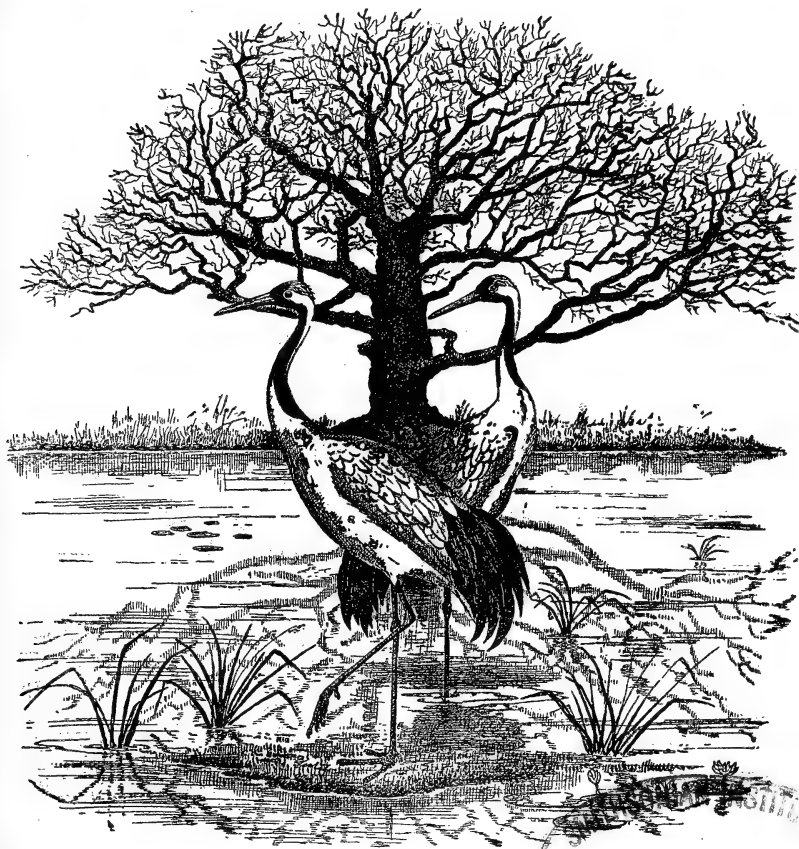
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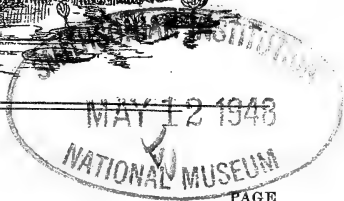
THE Avicultural Magazine



CONTENTS

	PAGE
The Mombasa Collared Sunbird (<i>Anthreptes collaris elachior</i>) (with coloured plate) . . .	267
Notes on the Status of Pheasants, by J. DELACOUR . . .	268
Breeding of Layard's Parrakeet, by Mrs. DARTON . . .	275
Polly—My Amazon, by COUNTESS OF ESSEX . . .	277
Duck-breeding Records, by Dr. E. HOPKINSON . . .	280

	PAGE
Breeding Record for 1935 at Bradley Court, by Capt. R. WAUD (with 2 plates) . . .	286
The Formosan Blue Magpie, by A. EZRA . . .	288
Correspondence, Notes, etc.: The Parrot Ban; Humane Avicul- ture; Improper Importation of Diseased Birds; Waxbills in Summer; Reported Mannikin and Canary Hybrids; Zebra Waxbill and Cordon Bleu Hybrids . . .	289
Obituary . . .	294



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THE AVICULTURAL MAGAZINE

THE JOURNAL OF THE
AVICULTURAL SOCIETY

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THE MOMBASA COLLARED SUNBIRD

(*Anthreptes collaris elachior*)

This lovely little bird is one of the smallest of the African Sunbirds, its rivals in this respect being *Cinnyris byfasciatus microrhynchus* and *Cinnyris minullus*. It is classified in the genus *Anthreptes*, of which *Malaccensis* is the type and with which it seems to have very little in common beyond the fact that in both the lower mandible is almost straight. In its movements and song it approaches certain members of the genus *Cinnyris*, and we consider it and its allies to form the link between the *Anthreptinae* and the more typical and specialized Sunbirds of the genera *Cinnyris* and *Nectarinia*. We feel that had Shelley had an opportunity of observing the *Collaris* group closely while alive he would have been content to keep them in a separate genus, *Anthodieta*.

The present sub-species was first imported by Mr. Webb from Tanganyika in 1934 and the West African race *Hypovila* was introduced by the same gentleman last spring. *Elachior* is smaller and brighter than the other races, the yellow on the centre of the abdomen being distinct from the paler shade of the flanks. The female only differs from the male in the absence of a metallic throat and chest.

This little Sunbird is very fond of mealworms and other larvæ, which are said to form the greater portion of its natural diet. To the south of its range it is replaced by the slightly larger *Zambeziانا*.

A. C.

NOTES ON PHEASANTS, THEIR STATUS AT
LIBERTY AND IN CAPTIVITY

By J. DELACOUR

It appears that the interest of British aviculturists for Pheasants has lately been increasing, as the formation of an Ornamental Pheasant Society has shown us. It is a cause of great satisfaction to me ; many years ago now, when I was still a child, I already was fascinated by these gorgeous birds. At the age of twelve, I was keeping several pairs ; at twenty, I had almost as many species represented in my aviaries as I have at present.

Pheasant keeping and breeding has long been very popular in France. Besides a few large collections, we have a number of smaller ones, and many amateurs rear every year a number of the less common species. Many European public and private aviaries have been stocked by them. There are also very good pheasantries in Italy, where Professor A. Ghigi owns one of the finest in the world, in Belgium, and in Germany. English aviculturists do not seem to have been so keen on Pheasants : it is only a few years ago that they have turned their attention to these fine birds. It is most gratifying to see that they have changed for the better in this way.

Pheasant breeding is not only an interesting hobby—nearly all species are pretty, long-lived, and easy to propagate ; many can be acclimatized and naturalized as game birds, with proper care and attention at the beginning, and prove of great practical value—but it is also a duty to nature as these wonderful creatures, at least many species, may not survive for long in a natural state. Their flesh and feathers make them the target of hunters ; it is becoming easier every day to penetrate into their wild haunts, and the natives are now armed with more deadly weapons. Species which seem to-day to be quite safe may become extinct within a few years, if conditions change suddenly. Also, their natural habitat is reduced every year.

With the exception of members of the genus *Phasianus*, who live in open country covered with grass and bushes, Pheasants are forest-dwelling birds. Forests are being destroyed all over the world with appalling rapidity, and with them all the animals and birds

which live in them. It is, therefore, very important that an adequate stock of the different species of Pheasants should be acclimatized in different countries and regularly propagated. Few birds take more readily to artificial conditions of life, and it is absolutely certain that, with very few exceptions, the different species of Pheasants can be indefinitely preserved in captivity. We have proof of the accuracy of this statement in the fact that several species are now common in Europe, though no fresh blood has been imported for over fifty years from their native country, where they have become scarce.

It has sometimes been alleged that the English climate is not favourable to the breeding of Pheasants. It is quite wrong. Most species live in wet, and often chilly, hill forests, and do quite well in the somewhat damp parts of England and northern France. To the few which require a drier and warmer climate, simple but effective shelters can easily be supplied.

I am not going to give here information on the housing, feeding, and breeding of Pheasants. But, as it has been my good fortune to study many species in their natural haunts, as well as in captivity, I should like to give our readers some idea of their comparative abundance or rarity at liberty and in captivity, and to this end I am going to review the different genera of the group.

If we consider the Blood-Pheasants (*Ithaginis*), we need only say that, living at great altitudes, they have been very seldom imported, and proved difficult to keep. But no particular effort has so far been made to acclimatize them. They seem to be still numerous in their natural habitats of Central Asia and China.

The five species of Tragopans are also birds of high mountains. On account of the difficulty of reaching their homes in many parts, they do not seem to be in any immediate danger of extinction, except perhaps Cabot's Tragopan, in Eastern China. Latterly, Satyr and Blyth's Tragopans have been imported and bred in some number in France and in America. But Cabot's and Temminck's, common twenty-five years ago, have now become very scarce, while Hasting's is unobtainable, for some unknown reason, from its Western Himalayan home. Although very hardy and ready to breed, Tragopans are not so easy to propagate as many others, and need special care.

Of the three Monals (*Lophophorus*), one, the Himalayan, is commonly imported and bred, while the two rarer species—Sclater's Monal from Upper Burma and Yunnan, and L'Huys's from Western China, scarce in the wild state and difficult to reach—have never been brought over, except in a very few cases. It is hoped that the Chinese Monal, the finest and rarest of the genus, may soon be imported into California. It is said to have been much persecuted and shot, and to be threatened with extinction.

The Brown Eared-Pheasant (*Crossoptilon manchuricum*) is common in captivity in Europe. But it has become scarce in N.E. China, where forests have been terribly reduced in the last thirty years. It is probable that it will soon become extinct at liberty. Fortunately, the captive stock is amply sufficient to preserve its existence. It breeds freely, although no fresh blood has been imported for a very long time and is never likely to be now.

The Blue Eared-Pheasant (*C. auritum*), from N.W. China, had never been sent alive to Europe till a few years ago. But it had long been bred in domesticity in its native country, on account of the value of its tail-feathers. It is now as well established with us as the brown species.

The White Eared-Pheasant (*C. crossoptilon*) has very seldom been seen in captivity. One pair is now in California and more are soon expected to arrive. It is to be hoped that this lovely bird will soon be established in aviaries as well as the other two. Its blue representative (*C. c. harmani*) from Tibet has once been brought over by Colonel Bailey, but never bred. It would also be a very interesting acquisition. It may be said incidentally that it is not closely related to *C. auritum*, in spite of their common blue-grey dress.

The Cheer (*Catreus wallichii*), from the Himalayas, is a curious if not very pretty Pheasant. It has long been scarce in captivity, but, during these last few years, it has been imported and bred in some numbers in France and in Italy.

The Koklass (*Pucrasia*), although still numerous in some parts of their mountainous haunts in the Himalayas and in China, have never been common in captivity, nor properly established in Europe, although many have been bred on several occasions. The Himalayan species

(*P. macrolopha*) has been lately imported and bred, but like the Tragopans and other high mountain Pheasants, it requires much room and special care. Some of the Chinese forms are now becoming rare in their native country.

The Kalijs constitute the genus *Gennæus*, of which the well-known Silver Pheasant is a member. It is a forest bird, still abundant in S. China and Tonkin, and completely acclimatized in Europe. South of its range, several local races are found, which grow darker and darker as they draw nearer to the Equator; Berlioz's and Bel's Pheasants are among them; they are fairly well established in Europe now.

The Annamese Pheasant (*G. annamensis*), from the southern hills of Indo-China, has never been imported, but the still darker and very handsome Lewis's Pheasant (*Gennæus lewisi*) was discovered and imported by myself from the mountains of S. Cambodia. It bred once at Clerès, but only cocks now remain. I hope to get a new consignment soon, but it is not a common species, and its home is one of the wildest spots in the world. All the above Kalij's have red legs.

Further west we find the grey-legged forms. The Lineated Kalij, of Siam and Burma, of which several races exist, has long been extinct in European aviaries, where hybrids between Black-crested, or Horsfield's, and Silver Pheasants have too often been mistaken for it. It is not rare at liberty, and quite pretty with its very fine vermiculations, giving its upper parts a silvery grey appearance.

Horsfield's Kalij, from Assam and Upper Burma, is common at liberty and also rather so in captivity, as well as the other black Kalijs from the Himalayas—Black-backed, Black-crested, and the prettier White-crested. All are very hardy and easy to breed and, I think, quite attractive, if not brightly coloured; they deserve more popularity than they have now. The curious Silver Pheasant of Hainan (*G. whiteheadi*) has never been imported, and seems to be rare in its island habitat. The different black Kalij would make most interesting game-birds in our woods.

The beautiful Pheasants of the genus *Hierophasis* have a much shorter crest than the Kalijs and the main colour of the cocks is a fine dark blue. Swinhoe's Pheasant, from Formosa, is abundant in

captivity and probably still common at liberty. No new blood has been imported for many years. Edwards' Pheasant, from the damp coast of Annam, is rare in captivity and at liberty, but it seems to be pretty well established now in Europe, to where I brought the first specimens in 1924. A little to the north lives the rarest member of the whole family, the Imperial Pheasant, which I had the luck of discovering. Only a very few wild specimens have been found. The original pair was brought over to France and bred successfully, so that we may hope that the species will be acclimatized and kept up in captivity.

The Firebacks belong to three different genera. The Siamese Fireback (*Diardigallus diardi*) lives in that country, but is also very common and widespread in Indo-China. Although some pairs breed well in captivity, others give poor results, and while it is fairly well established in Europe, it still remains one of the rarer species. The same thing can be said of the different Crested (*Lophura*) and Crestless (*Houppifer* = *Acomus*) Firebacks of the Malay Peninsula, Sumatra, and Borneo. The only exception is the very rare Sumatran *H. inornatus*, one female of which is now living in Dr. Ghigi's collection.

The wonderful Wattled Pheasant (*Lobiphasis bulweri*), from Borneo, one of the marvels of nature, has been brought over on a few occasions but so far has never bred in captivity. It does not seem to be very rare in its native island. Some pairs are expected to arrive shortly.

The Junglefowls (*Gallus*) of the four species—Red, Sonnerat's, Lafayette's, and Green Javan—are all numerous at liberty. They breed well in Europe, the first named being naturalized in a few places in England and in France. The remaining three are rather rare in captivity, but all represented in collections at the present time.

The very numerous forms of the common Pheasants, which are found from the Caucasus to Formosa and Japan, although still very abundant, have, in my opinion, a very uncertain future. Every year they are more and more persecuted and shot, and I know of many districts whence they have now disappeared. They established themselves readily in Europe and in America but, unfortunately, they have been crossed more or less together so that our covert Pheasant is nothing

but a mongrel. The appearance of such an interesting mutation as the "Melanistic Mutant" may be recalled. It would be of very great importance to establish and propagate, in a pure state, such fine races as the Mongolian, the Corean, the Chinese Ringneck, the Formosan, the Versicolor (or Japanese Green), the Prince of Wales's Pheasants, and indeed all the well-marked geographical forms.

The Long-tailed Pheasants of the genus *Syrnaticus* are very attractive. They probably ought to be classified in different genera, as their hybrids are mostly infertile, at least the hens.

Reeves' Pheasant, one of the finest of all, is getting rare in many of its former strongholds in China, and has not been imported for a long time. It is, however, quite well established in France, as much at liberty as in aviaries, and there need be no fear for its future. The different Japanese Copper Pheasants (*scintillans*, *soemmerringii*, and *ijimæ*), still fairly numerous in Japan, remain rare in our pheasantries, although they often breed easily. But they are of extremely pugnacious habits, and it is often difficult to pair them up without accidents.

Elliot's Pheasant is said to have become scarce in Eastern China, although a few specimens are brought over now and then. But it is fairly well established in captivity, especially in France.

The Mikado Pheasant, from Formosa, very fine in its dark blue and white dress, has always been very rare. I keep a good stock of these birds and breed some every year, but they are not very prolific.

Golden and Amherst's Pheasants, whose indescribable beauty is well known to all, are still common in their native Chinese haunts as well as in captivity. No wild Amherst's had been imported for over sixty years when I brought some from Yunnan in 1930; it was most useful, as nearly all European bred specimens have traces of Golden blood.

The Bronze-tail (*Chalcurus*) is a member of the Peacock-Pheasant group (*Polyplectrons*) but its voice and display recall those of the Golden Pheasant, and it forms a transition between them. Not bright, but pretty and small, it is scarce, or at least difficult to find, in the mountain forests of Sumatra. It was only imported a few years ago, but I found it easy to breed and prolific. It ought to establish itself well in Europe. It still is a very uncommon bird. Its Malay

relatives are much rarer still (*C. inopinatus*), and have never been brought alive.

Of the true Peacock-Pheasants, all but two (*P. schleiermackeri*, from Borneo, and *P. katsumatae*, from Hainan) are represented in my collection. Two, the Chinquis, or Gray, and Germain's, from the Himalayas and from Cochin-China, are not uncommon and rather well established in captivity. The Malay (*P. malaccensis*) remains very rare and has seldom bred, while the lovely Palawan, or Napoleon's, seems to have been successfully acclimatized in California ; it has bred with me for the last two years.

The wonderful Ocellated Argus (*Rheinartia*) of Annam is still rather common in the deep damp forests of Central Annam. It is difficult to bring over and to acclimatize, but once it has got over the first few months it proves hardy in Normandy. I have now several pairs, and a few young are reared every year. The Malay race (*R. o. nigrescens*) seems to be much scarcer.

Both forms of Argus are plentiful in the Malay Peninsula, Sumatra, and Borneo, where no danger of extinction seems to threaten them. Although they live and breed well enough, if given some slight heat during the winter, they never seem to become properly established with us and we still depend on imported birds.

To end this survey of the Pheasants, we shall say that the Common Peafowl, completely acclimatized in Europe,¹ is very abundant in India, where it is protected. The fine Burmese, or Spicifer, is holding its own in Burma, Siam, Indo-China, and Java, in spite of much persecution. But it seems never to have become well established in Europe.

¹ The White variety and the Black-winged mutation are also well established.

THE SUCCESSFUL BREEDING OF THE LAYARD'S PARRAKEET

(*Psittacula calithrapæ*)

By MRS. DARNTON

The Layard is by no means a brilliantly coloured Parrakeet, but the lavender blue head and shoulders, blue rump and violet central tail-feathers, set off by a bright coral beak, make the cock a very attractive bird, the body and wings being a bright rich green.

The hen is more soberly garbed, her beak being black, and green predominating, except on her rump and tail, which are like the cock's.

Layards are peculiar to Ceylon, but even there they are by no means a common bird, keeping to the hill country and being very local. I first made their acquaintance in the wild state while I was on a three months' trip to Ceylon during the winter of 1934, as I often used to watch a small flock of eight or ten birds in the neighbourhood of Kandy. These were nesting in various trees within a short distance of each other, all at varying heights, one pair having a nest in a hollow branch only about 12 feet from the ground, while another pair had young in a hole at least 60 feet up, the tree it was in being absolutely straight, with a smooth grey trunk completely devoid of branches except at the very top, the Layard's nest being a few feet below the first branch. With a strong pair of field glasses I could plainly see the young birds, evidently nearly ready to fly, craning their little heads out of the hole to be fed by their mother. Suitable nesting accommodation was evidently at a premium in that district, as on several occasions I watched the parents driving off other house-hunting Layards, and once even a pair of Ceylon Alexandrines were uncere- moniously given their *congé*.

The pair which have successfully reared two very fine young in my aviaries this summer were bought from natives who had hand-reared them and kept them for pets. The hen I discovered in the fruit market in Kandy, hanging in a particularly small and dirty wire cage, with a messy little dish of curry on its floor and a piece of banana

pushed through the bars. On asking to see her more closely, she was immediately hauled out of her cage by her delighted owner, who with pride placed her on his shoulder, saying, "See Missy, how tame she is!" On pulling her wings out (getting a nasty little bite in the process), I found the reason for at least some of her tameness—all her flight feathers had been cut off short! After the usual bargaining I bought her, and a very demure and charming little bird she proved to be, for after the first few days she would let me handle and pet her without attempting to use her beak.

The cock, a particularly large bird, in immature plumage, we bought a few days later from a villager near the Kandyan pass. They both travelled home successfully: Jane, the hen, spending last summer in a cage waiting for her wing feathers to grow.

In the autumn, when she was once more able to fly, she was turned into a large bird-room, with her future mate and some young Plum-heads. During last winter the cock came into full adult plumage and a very fine bird he turned out to be. Towards the middle of last April both Layards were put into their breeding quarters—a large aviary with a flight 30 feet long by 4 feet wide—but the weather was so cold that, although they were both very interested in their nest-box—of the "grandfather clock" type—the hen did not lay until about 20th May. She had three eggs, white of course, and large for the size of the bird. She sat very steadily and hatched two young, which I took a peep at when they were a few days old. Even for baby Parrakeets they struck me as being particularly ugly and misshapen, and they were quite naked.

By the 6th of July they were beginning to show green at the end of their quills, and as Jane seemed to have no objection to my looking at them, I used to peer into their box every few days. They were quite extraordinarily steady, cocking their heads and gazing at me quite fearlessly, and never attempting to make the hysterical noises that most young Parrakeets think it their duty to terrify one with, when they see that they are being inspected. The weather was now tropically hot, and Jane spent most of the day sitting dozing at the entrance hole of the box, no doubt making life below extremely stuffy and airless for her young offspring. Nevertheless, they seemed to

thrive on it, as one evening I saw two little heads peering out at the world.

For several days they spent most of their time taking stock of their new surroundings, then, on the morning of 29th July, two very self-possessed young Layards were perched side by side on a branch, both looking completely smug and nonchalant. Excepting for their blue rumps they were green all over, with bright coral beaks. They were both very strong on the wing and did their father and mother great credit. While they were in the nest the parents had been fed on their usual millet and canary mixture, sunflower *ad lib.*, a teaspoonful of hemp twice a day, apple, and a little green chickweed. They are now, 6th September, completely self-supporting and as big as the old birds.

POLLY—MY AMAZON

By the COUNTESS OF ESSEX

Polly is a Blue-fronted Amazon (*A. æstina*) but quite the smallest I have ever seen. I answered an advert. in a paper—someone wished to sell a Parrot. I liked the description and thus became the owner of Polly. I was very disappointed with her appearance when she arrived. She was thin, her plumage ragged, and she smelt like a mouse—or rather a dozen mice. (Of course, she is a very different looking bird now.) As I unwrapped her cage I heard mutterings, “What do you want—what do you want,” but when she actually came in view she was silent.

I spoke to her, offered her grapes, which she took from my hand, then still talking to her put my hand in her cage—rather nervously I must confess. To my surprise she got on to it at once and since then we have been the greatest of friends. To me personally, Polly is the most loving and gentle bird I have ever owned. She is not so with other people. My butler, who is devoted to all the pets, had a terrible reproof from Polly. Meeting her walking upstairs (she is nearly always loose) he put his hand down for her to get on to, as he had seen me do hundreds of times. She got on to it and let him carry her half-way upstairs when (as he describes it) “she stared very hard at me and

the next second she made her beak meet through my finger ". Polly has not been offered many " helping hands " since !

During the summer Polly is loose in the garden for many hours, generally remaining in some fruit trees near the house. If anything startles her she flies round for a bit. One terrible day she flew to the tops of the tallest elms and seemed to be too nervous to come down again. She never went off the place, but remained out for four days in spite of my frantic efforts to attract her down. She answered all my calls and sometimes flew round and round in circles high above my head, but still lacked the nerve to descend. It was heart-breaking to see her little yellow face peering down, anxiously wondering why I did not fetch her home. At long last she did come down to a smaller tree, and by climbing we got her. Then her joy was intense—she sang, kissed me, and was almost too excited to eat. During the time she was out she could have eaten nothing but the tree leaves, etc., and through glasses I watched her licking dew off the leaves as, of course, she had no water. However, it taught her a lesson. Now if she flies off for a few hours she comes down at the front door and shrieks until she is fetched in.

She is extremely jealous of me : she will shriek and scream if I pick up a puppy, etc., and if I do not leave it and go to her, she will fly across all ready for an attack. Strangers she hates and will shriek and rave until I take her on my shoulder—then she will settle down quietly. In fact I am her only lover, and she is very faithful. (Secretly I feel very proud of being the only person in the household who can handle Polly !) I can do anything I like with her : tickle her, roll her on her back, pick her up anyhow—*nothing* annoys her if I do it.

When I first owned Polly I was worried about her health and generally disreputable appearance, so I wrote to Lord Tavistock and asked his advice. He very kindly wrote me a most helpful letter, and cheered me enormously by saying healthy Parrots were nearly always jealous, in fact jealousy was an excellent sign, so I felt my Polly had a very good chance of surviving. Her stable food is a mixture of canary, hemp, millet with a dash of Spratt's Parrot food in it. Pea-nuts are always with her, she does not much care for any others. Her favourite fruits vary ; at the moment cherries are first favourites, but grapes are always

eaten. I try to give her as much change as possible. Peas in the pod (much appreciated), raw carrots, bananas, and very sweet oranges are all popular, but apples she does not care for. However, she likes all fruit in turn except strawberries and raspberries—she will not touch these. When in a festive mood Polly sings softly to herself, spreading out her beautiful striped tail, while her eyes light up as if she had a flash-lamp inside her head.

Polly has two cages, one downstairs and one up (for night). When I say "Come to bed, Polly", she is ready to go at once and gets on my hand or shoulder, singing one of her little songs. They are "songs without words" but very sweet for all that. When I begin to cover her cage for the night she starts screaming exactly like a very small baby and continues until the cover is right on. By the way, no cover lasts long with Polly, she soon picks holes in it. If I speak to her in the night a glittering eye appears at one of the many holes, and if I put my finger in the cage she rubs her dear little head against it.

I don't think I have mentioned Polly's musical tastes: she adores the wireless, not "news" or "talks" but bands and songs. She generally joins in these last, no words of course, but she has really an excellent ear and, anyway, enjoys her own performances immensely.

When flying loose in the garden, if frightened or wanting me, Polly utters a peculiarly weird cry which I can only attempt to describe as "Baaick, baaick—Baaick, baaick". It is surprising how far she can be heard, but her vocabulary is rather limited!

Sometimes on a winter evening she will climb on my knee or shoulder and go to sleep literally. However, I always notice, if I do the same, I wake to hear a tearing sound and realize I shall have to pay for yet another library book!

She occasionally feels it her duty to preen my hair, all the time giving sharp little "Ohs!" and "Ahs!", I suppose to save me the trouble, when she pulls it!

I must mention one of Polly's most amusing adventures. One day she flew over the garden wall into the village, where the sound of her voice is well known. Funnily enough, she went straight to the "Rose and Crown" (public-house), where she seated herself on the doorstep. No one dared touch her so I was sent for. When I arrived I found

poor Polly surrounded by a large crowd, gazing anxiously through the bars of a hen coop which someone had dropped over her, and repeating loudly, "What *do* you want? What *do* you want?" She was very pleased indeed to scramble on my shoulder and turn her back on public life!

To me there is something peculiarly fascinating in a really tame bird, so tame that it is really a member of the household. Of course, one's furniture occasionally shows "the mark of the beak", but who cares when one has "Polly" to welcome one!

DUCK-BREEDING RECORDS

SUMMARY OF RECORDS TO DATE (AUGUST, 1935)

By DR. E. HOPKINSON, C.M.G., D.S.O.

The list of Duck Hybrids given on p. 78 of this year's Magazine having at least interested a few, and provided me with some additions and other facts of interest, I venture to supplement it with a Summary of the Records to date in the hope of interesting others and producing more information in the way of additions or corrections.

The relative values of the Records are roughly indicated by the use of different types. CAPITALS mean that as far as the Records go, the species (or hybrid) has certainly been bred and that no further record is needed; for those shown in ordinary type more detail is wanted, while enclosure in parentheses indicates doubt and the addition of a (?) more doubt.

The numbers are those of *Records*, 1926.

- 535. Whooper Swan.
- 536. (Whistling Swan; *hybrid record only*).
Bewick's Swan (Woburn).
- 537. TRUMPETER SWAN (Holland).
- 538. COMMON SWAN.
- 539. BLACK-NECKED SWAN.
- 547. Coscoroba Swan (Woburn once).

Swan Hybrids

COMMON SWAN × DOMESTIC GOOSE (× Bernacle-Canada Goose hybrid).

WHOOPER × Whistling Swan ; × Trumpeter ; × Domestic Goose.

TRUMPETER × Common Swan.

BLACK SWAN × Common Swan ; × Domestic Goose (abroad) ;
× Canada Goose.

541. SPURWING GOOSE (Whipsnade, 1933).

Hybrids. × Egyptian Goose ; × Magellan Goose.

542. MUSCOVY DUCK.

Hybrids. × DOMESTIC DUCK ; (× Shelduck ?) ; × Egyptian Goose.

545a. (White-winged Wood-Duck, *Asarcornis scutulata* ; a hybrid record only with the female Domestic Duck.)

546. KNOB-BILL DUCK, "Comb-duck."

544. MANDARIN DUCK.

Hybrids. × Carolina Duck ; (× Domestic Duck).

543. CAROLINA DUCK × Spotbill Duck, Zoo ; × Gadwall ; × Pochard ;
× White-eyed Pochard ; × Tufted Duck ; (× Australian Wild Duck).

545. CEREOPSIS GOOSE.

553. (Greylag Goose. ? if true wild birds have ever been bred except from collected eggs.)

Hybrids. DOMESTIC GOOSE × SNOW-GOOSE (U.S.A.) ; × Chinese Goose ; × Egyptian Goose ; (× Muscovy Duck).

557. (Bean Goose, U.S.A.)

Hybrids. Bean Goose × White-fronted Goose ; (× Domestic Goose).

554. (White-fronted Goose, Zoo, 1842.)

555. Lesser White-fronted Goose.

Hybrids. (× Bernacle Goose.)

556. Pink-footed Goose.

558. BAR-HEADED GOOSE.

Hybrids. (× Shelduck.)

550. SNOW-GOOSE.

Hybrids. × Domestic Goose (U.S.A.)

549. Blue Snow-Goose (U.S.A.)

Hybrids. × Snow-Goose ; × Bean Goose.

552. ROSS'S SNOW-GOOSE (Holland).

559. CHINESE GOOSE, Commonly.

Hybrids. × DOMESTIC GOOSE ; × CANADA GOOSE ; × Bar-headed Goose ; × Blue Snow-Goose ; × Egyptian Goose.

560. EMPEROR GOOSE (Holland).

Hybrids. × Snow-Goose (*or ? Ross's Snow-Goose*).

561. CANADA GOOSE.

Hybrids. (× Domestic Goose).

562. HUTCHINS'S GOOSE.

563. BERNACLE GOOSE.

Hybrids. × Chinese Goose ; × Lesser White-fronted Goose ; (× White-fronted Goose) ; (× Bar-headed Goose) ; (× Hutchins's Goose).

RED-BREASTED GOOSE (Woburn, 1926).

564. Sandwich Is. Goose (Paris, about 1860).

Hybrids. × Chinese Goose (Honolulu *teste* Hachisuka).

548. ORINOCO GOOSE.

And hybrids. × Egyptian Goose.

ABYSSINIAN BLUE-WINGED GOOSE (Holland).

570. MANED GOOSE.

And ? hybrids. (× Upland Goose).

567. Andean Goose (Zoo, 1916).

565. UPLAND or MAGELLAN GOOSE.

And hybrids. × RUDDY-HEADED GOOSE ; × Egyptian Goose.

566. BLACK-BANDED UPLAND GOOSE (*dispar.*) (Holland).

And hybrids. × Upland Goose.

568. RUDDY-HEADED GOOSE.

And hybrids. × UPLAND GOOSE.

569. ASHY-HEADED GOOSE.

575. EGYPTIAN GOOSE.

And hybrids. × Wild Duck ; (× Shelduck) ; (× Chinese Goose) ; (× Spurwing Goose).

571. White-faced Tree-Duck (1914 and after).
 572. Bahama Tree-Duck (France about 1870).
 574. Red-billed Tree-Duck (France, 1927).
 573. Fulvous Tree-Duck (France, 1932).
 576. SHELDDUCK.
And hybrids. SHELDRAKE × Grey-headed Shelduck ; × Ruddy Shelduck ; × Wild Duck ; × Egyptian Goose ; × Carolina Duck.
 576. (Rajah Shelduck, *a hybrid record only.*)
 Rajah Sheldrake × Ruddy Shelduck (Clères, once).
 577. RUDDY SHELDDUCK.
And hybrids. × Egyptian Goose ; × Shelduck ; × Grey-headed Shelduck ; (× New Zealand Shelduck) ; (× Australian Shelduck) ; (× Falcated Duck).
 578. GREY-HEADED SHELDDUCK (*cana*). St. James's Park, etc.
And hybrids. (× Ruddy Shelduck.)
 579. NEW ZEALAND SHELDDUCK.
And hybrids. N.Z. Sheldrake × Ruddy Shelduck.
 580. (Australian Shelduck. *A ? hybrid record only.*)
 (Australian Sheldrake × Bar-headed Goose.)
 581. WILD DUCK.
And hybrids. Mallard × MUSCOVY DUCK ; × MELLER'S DUCK ; × YELLOWBILL DUCK ; and this hybrid × Wigeon ; × SPOTBILL DUCK ; × PINTAIL ; × Dusky Duck ; × Australian Wild Duck ; × Gadwall ; × Wigeon ; (× American Wigeon) ; × Shoveler ; × Rosybill ; × Bahama Duck ; × Chilian ; × Pintail ; × Teal ; × Carolina Duck ; (× Mandarin Duck ?) ; (× Egyptian Goose) ; (× Red-crested Pochard).
 (*Also further crosses, Bonhote's trigens, etc.*).
 584. MELLER'S DUCK.
And hybrids. MELLER'S × WILD DUCK.
 583. DUSKY DUCK.
And hybrids. × Wild Duck, and a further cross ; × Yellowbill. (Luzon Duck ; a hybrid record only, × Australian Wild Duck.)

585. AUSTRALIAN WILD DUCK.
And hybrids. × MELLER'S DUCK; × WILD DUCK; × PINTAIL. And this hybrid × MELLER'S DUCK; × Chilean Pintail; × Rosybill.
587. YELLOW-BILLED DUCK.
And hybrids. × DUSKY DUCK; × MELLER'S DUCK; × SPOT-BILLED DUCK; × Wild Duck; × Carolina.
588. SPOTBILL DUCK.
And hybrids. × Wild Duck; × Carolina Duck.
582. S. AFRICAN BLACK DUCK (Holland).
586. (Chile Crested Duck).
589. ANDAMAN TEAL, Zoo, 1905.
590. FALCATED TEAL.
And hybrids: × GADWALL; × Australian Teal; × Shoveler (Lilford, 1931); × Wigeon (France); × Chiloe Wigeon.
611. (Marbled Teal ?).
Hybrids. × White-eyed Pochard.
591. GADWALL.
And hybrids. Gadwall × Carolina Duck; × Wild Duck; this hybrid × Pochard (France); Gadwall × Pintail.
592. WIGEON.
And hybrids. × AMERICAN WIGEON; × GADWALL; × Chiloe Wigeon; × Wild Duck; × Pintail; × Baikal Teal; × Red-crested Pochard; × Carolina Duck; (× Common Teal); (× Australian Teal); (× Tufted Duck).
593. AMERICAN WIGEON.
And hybrids. × WIGEON, and a further cross; × Bahama Duck.
594. CHILOE WIGEON, France, 1870; first, U.K., 1913.
And hybrids. × WIGEON; and a further cross; × Bahama Duck.
603. PINTAIL DUCK.
And hybrids. Pintail × WILD DUCK and further crosses; × Chilean Pintail; × Meller's Duck; × Australian Wild Duck; × Wigeon; × Chiloe Wigeon; × Common Teal; × White-eyed Pochard; × Tufted Duck (1934); (× Garganey); (× Shoveler).

604. CHILIAN PINTAIL.
And hybrids. × Pintail; × Bahama Duck; (× Australian Wild Duck); × Wigeon; × Gadwall; × Chilian Teal; × Carolina Duck (*one skin*).
605. BAHAMA DUCK.
And hybrids. × AMERICAN WIGEON; × Carolina Duck; × Brazilian Teal; × Chilian Teal; × Australian Teal.
606. RED-BILLED DUCK.
608. GARGANEY.
And hybrids. × Common Teal; × Shoveler.
609. AMERICAN BLUE-WINGED TEAL.
And hybrids. × CINNAMON TEAL.
607. Versicolor Teal.
And hybrids. (× Baikal Teal).
610. CINNAMON TEAL.
And hybrids. × AMERICAN BLUE-WINGED TEAL.
596. COMMON TEAL.
And hybrids. (× Wild Duck); (× Baikal Teal).
602. RINGED TEAL.
601. BRAZILIAN TEAL.
And hybrids. (× Australian Teal.)
600. CHILIAN TEAL.
And hybrids. × Common Teal; × Carolina Duck.
595. Baikal Teal.
598. AUSTRALIAN TEAL.
And hybrids. × Chilian Teal; × FALCATED TEAL.
599. Grey Teal (*gibberifrons*), Holland.
And hybrids. × Australian Teal, Holland.
612. SHOVELER.
Red Shoveler, 1934.
614. ROSYBILL DUCK.
And hybrids. × WILD DUCK; × Red-crested Pochard; × Pochard; × Tufted Duck; × Carolina Duck; (× Combduck).
613. RED-CRESTED POCHARD.
And hybrids. × Rosybill; × Pochard; × Australian Wild Duck; (× White-eyed Pochard).

615. POCHARD.

And hybrids. × Red-crested Pochard ; × White-eyed Pochard ;
× Tufted Duck ; (× Scaup) ; (× Lesser Scaup) ; (× Carolina Duck) ; (× Wild Duck).

616. American Pochard, U.S.A., 1924.

617. WHITE-EYED POCHARD.

And hybrids. × TUFTED DUCK ; (× Marbled Duck) ; (× Rosy-bill) ; (× Carolina).

Madagascar White-eyed Pochard, France, 1934.

618. SCAUP. *And hybrids.*

Scaup × Lesser Scaup, Wormald, 1924.

Scaup × Canvasback Duck, Lilford, 1931.

(Scaup × White-eyed Pochard. B.M. skin.)

- | | | |
|--------------------------|---|---|
| 619. (Lesser Scaup) | { | (two ? hybrid records for these two only,
both with females of the American
Pochard). |
| 620. (Ring-necked Scaup) | | |

621. Tufted Duck.

And hybrids. × Pochard ; × White-eyed Pochard.

622. Canvasback Duck.

623. EIDER DUCK.

624. Golden-eye (Holland).

WHITE-BACKED RIVER-DUCK, *Thalassornis*, Ezra, 1932.

BREEDING RESULTS AT BRADLEY COURT

By CAPT. R. WAUD

The breeding of the birds at Bradley this year has been most disappointing. I had great hopes of breeding Demoiselle Cranes : one pair laid two eggs, but unfortunately, as last year, they were both unfertile. It is very distressing : they lay every year, but the eggs are always clear, although I have four birds and I feel sure there is a true pair. My pair of Crown Crested Cranes made a very good nest of twigs and straw and laid four eggs this year. I had great hopes of them, as both birds have taken it in turn to incubate. The cock sits all day and the hen sits all night ; but, alas, all the eggs are unfertile !

They are still very keen on sitting on them, and have been doing so now for over six weeks. When the birds begin to think of nesting they get very savage, and one has to be careful when going into their paddock, as the cock goes for one at once. During the non-breeding season a grey-necked Crown Crane lives with them, but they fight him so badly when they wish to nest that I have to remove him to the wallaby paddock, and he lives there in comfort with them.

The Ducks: I have only reared one Mandarin, now full grown and full winged: it is a great joy to see it flying round and returning to the pond. All the Carolina eggs were clear. Of the Falcated I have only reared three young ones: these I had to pinion, as they never stay when full winged. No other Ducks laid this year; I put it down to the very severe frosts and cold we had in the late spring and then the intensely hot, dry weather after it.

The aviary birds were also unsuccessful. One pair of Gouldians had four nests: they began very early in the spring, but only one young one has been reared. I must say I think they are old birds, as I have had them some years and I fancy they were not very young when I bought them. The Bichenos have spent much time building, but with no results. The Ruficaudas have had two nests: the first nest had two good young ones and the second nest had three: all are flying now in the aviary. The Jungle Fowls Mr. Ezra very kindly gave me have been delightful about the place. The two hens nested and had five chicks with one hen and seven chicks with the other; but unfortunately, as soon as the chicks were hatched, they took them off into the woods, and I fear all the chicks were killed by foxes, which abound round here. Lately the Jungle Fowls have lived in the woods, I expect finding plenty of food there, but I hope later on they will return to the garden again where they are fed.

The most delightful birds I keep in the house, the chief one being an Indian Sprosser Mr. Ezra kindly gave me some years ago. He is a magnificent songster, and begins to sing quite early in the winter. Many people think the song too loud, but I personally love it. He is perfectly tame, and takes anything out of my hand; also resents my taking out his perches to clean and soak in cold water; he flies on to my hand and then begins to fight it.

Another delightful house bird is a Troupial; he flies about everywhere and goes off into the garden, returning to his cage when he wishes. When I go into the park to catch grasshoppers he will always come with me, although I do not catch them for him but the other birds; all the same he thoroughly enjoys it, and helps himself very freely to them.

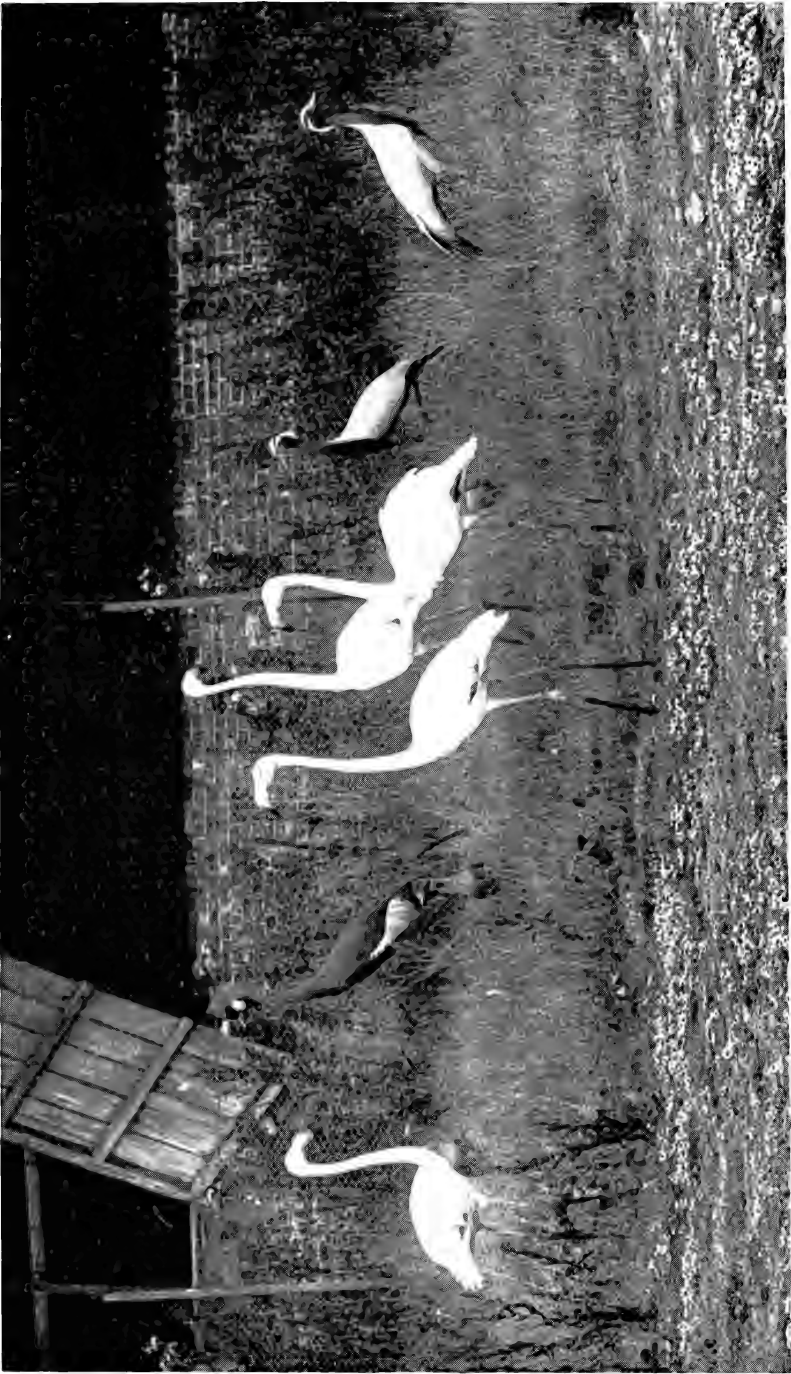
I fear these few notes are not very encouraging to aviculturists. All the same, I think if one has an achievement it pays well for all the disappointments.

THE FORMOSAN BLUE MAGPIE

(*Urocissa caerulea*)

The fine Magpies of the genus *Urocissa* are found in the mountainous regions of Northern India, Burma, China, and Indo-China, and are represented in Formosa by the largest and most handsome species. While all the continental forms have brown eyes and white under parts, the Formosan Blue Magpie has pale yellow irides and a blue belly, which are a decided improvement on the general pattern of colours of these lovely birds. Perhaps, however, its tail is not quite so long and so gracefully curved and wavy as that of its smaller relatives. Like all the *Urocissa* the Formosan Blue Magpies live in woods and in open country well intermixed with trees and bushes, where they go in small parties, hunting for large insects, small vertebrates, and fruit on which they feed. They are numerous in camphor forests on the mountains, flying from tree to tree. They are shy and difficult to approach. A few specimens of these fine birds have been imported alive into Japan from time to time, but none, so far, had reached Europe. Owing to the kindness of Prince Taka-Tsukasa, a pair at last arrived in England last January, and I am most grateful to him for this handsome present.

ALFRED EZRA.



CRANES AND FLAMINGOES AT BRADLEY COURT.



DUCKS, FLAMINGOES, AND CRANES AT BRADLEY COURT.

CORRESPONDENCE, NOTES, ETC.

THE PARROT BAN

I personally welcome both Mr. Porter's and Mr. Webb's articles and also the correspondence (or rather some of the correspondence) which their publication has caused. Undoubtedly the former free importation of Parrots did create much cruelty and suffering, and the dealers only have themselves to blame for the ban. Doubtless this will, in course of time, be modified, but I cannot conceive how any person who really has the interests of birds at heart can desire a return to the old conditions. Even now the supplies of Parrots are far from being cut off, for besides the birds imported with licences, there can be little doubt that a good many are still coming in without them.

But I think Mr. Webb's article is of more pressing importance to Aviculturists, although I do not agree entirely with all he says. As I have been in the habit of going the round of the London bird shops with some regularity, perhaps my experiences may be of interest to a few members.

I am convinced that so long as birds are imported in comparatively small numbers to be sold retail by the dealers, there is little or no cruelty. The birds usually arrive in good condition and are quickly disposed of, to what one imagines are good homes. The trouble arises almost entirely, in my opinion, when the birds are imported in very large numbers for selling wholesale. Again, the birds usually arrive in fair condition but owing to the large numbers are overcrowded in the dealers' cages. This results in the birds never having a chance to settle down, what with continual catching operations, and because of the large numbers a good many are not sold very quickly. They remain in the shops until inevitably disease sets in and many birds perish miserably.

Sometimes this is due to ignorance or cupidity on the part of the dealers, but obviously it is not always their fault. If one dealer imports in large numbers to sell cheaply, others must follow his example or go out of business. It is extremely difficult to know what the Society, as representative of all that is best in British Aviculture, can do in the matter.

Mr. Sweetnam's suggestions are, I think, very helpful and form a useful basis for discussion. I am, however, of the opinion that at present we can place but little reliance on home-bred stocks of birds. Although a great number are bred annually, the number of really capable breeders whose aviary bred stock is worth breeding from again is extremely limited. Certainly everything should be done to encourage better and more useful breeding, but I do not think that the science of Aviculture has yet reached that stage where home breeding can be regarded as at all efficacious.

I am afraid that for the Society to import birds for members would be of little use in improving the bird trade, unless done on a very large scale, which it cannot afford to do. A few members might be able to obtain birds cheaply that they had not hitherto possessed, but such an operation would have no effect on the bird trade as a whole.

What I should like to see would be an amplification of Mr. Sweetnam's second suggestion. I think that it would be an excellent idea if the Society were to grant a Certificate, which would always be open to cancellation, to those dealers from whom members could buy birds without the suspicion that they had occasioned cruelty in so doing. Only holders of the Certificate

would be allowed to advertise in the Magazine, and a list of Certificate holders could be published in each number. This would, I think, be of mutual benefit both to members and dealers. Should this be done, and should members loyally support those dealers (always provided that the latter do not use the granting of a Certificate to charge exorbitant prices), it is at least possible that the other dealers would have to fall into line and improve their methods of importation. But what I am convinced is of far greater importance, the Society would have taken some action to attempt to improve the standards of the bird trade, of its own free will. Whatever the outcome, it would be a worthy attempt and one which would do much to raise the Society's prestige and importance.

I am certain that some scheme on the lines suggested above would be perfectly feasible. Now that the whole question of the importation of birds has been raised, I sincerely hope that the matter will not be shelved by the responsible authorities, for it is a question that must be raised sooner or later and which will become increasingly difficult as time goes on.

As for Mrs. Jackson's letters, I think the less said the better.

I am sure that every thoughtful person will agree that Mr. Webb deserves not to be condemned for a breach of good taste, but rather to be congratulated for his courage in broaching a very thorny question, but one which must always be of supreme importance to the whole practice of Aviculture.

ALASTAIR MORRISON.

HUMANE AVICULTURE

I am thoroughly in sympathy with Mr. Webb's article. The pity of it is that it did not appear long ago. I welcome a league on the lines which Preb. Sweetnam suggests. No aviculturist who is worthy of the name would object to paying a *reasonable* price (I mean an increased price) for birds, *if* they were caught and imported by real naturalists and bird lovers, preferably private individuals. There is also, I know, a wide field open to someone of this sort who will open a shop on the best lines and supply healthy birds, kept under ideal conditions, *but at* reasonable prices. I mean prices which, while naturally in advance in some cases of those charged under the old conditions, are yet not absurdly prohibitive as is so often the case with regard to "Bird Farms" and semi-private individuals at present. Quite recently I was offered at a bird shop in town (of this sort) a pair of Redbill Weavers at 15s. 6d.—nearly twice their value, even for healthy and acclimatized birds. I was also offered a Parrakeet nest-box for 25s. (A carpenter examined it and assured me that he could have put it together in a day, for about 5s.)

However, all this by the way. It will have to come in in connection with reorganized Aviculture. I suggest that we band together and choose our own representatives who shall, as far as possible, do the catching and importing, selling chiefly to private individuals and only to reputable dealers. (I know one or two such as De Von, who really seem to love and understand their birds.) Also that we boycott and report to the R.S.P.C.A. any dealer or other person who transgresses against the humane principles which should be common to all Aviculturists.

Just one word *re* two of the letters in your last issue. "Ornithologist" is rather beside the point. We, while being most of us reasonably interested

in the scientific side of our hobby, do *not* want to make our Journal largely unintelligible or of lessened interest to the ordinary bird keeper. I suggest, too, that many ornithologists like entomologists can hardly throw stones at ordinary bird keepers, when we consider the vast number of specimens sacrificed and clutches of eggs seized to form a series, etc. I dissent from your lady correspondent on different grounds. Her letter, I am afraid, will do just what she accuses us of doing, since her whole attitude is that of a certain section who refuse to face facts and because *they* have a few birds which are happy and return home if escaped, argue that all captive birds are ideally kept and will do likewise; the fallacy of which must be plain to anyone who does not shut their eyes to what exists. Her innuendos as regards Mr. Webb are in very bad taste, and her suggestion that isolated individuals should remonstrate with offending dealers is, I am afraid, quite futile.

P. KINGSFORD VENNER.

P.S.—We should, of course, to be really effective, refuse to buy from anyone who is not “on our list”.

IMPROPER IMPORTATION

I think it is certainly true that members of the Avicultural Society need to give far more thought to the problem of devising means whereby the birds they obtain for their collections receive humane treatment from the time they are first caught. Even in quarters where they should not occur, there seem to be far too much culpable ignorance and carelessness, and until certain people mend their ways there is not the slightest reason to hope for the modification of the Parrot ban. Last year, owing in part to an official blunder, a large dealer and a person in a smaller way of business who is more dealer than true aviculturist, imported under the usual filthy conditions a large number of diseased psittacine birds from Australia. I had the misfortune to have some valuable birds, properly packed, on the same boat, which caught the infection from the dealers' birds and died, and caused some inquiries by the Ministry of Health. I heard on very good authority that the pseudo-aviculturist sold large numbers of his diseased stock in spite of the fact that it is illegal to sell Parrot-like birds imported on a permit.

I hoped this would be the end of trouble of this kind, but a few months ago a hen Rock Grass Parrakeet that I greatly needed died on the voyage, although properly packed, and the Ministry of Health who made the post mortem informed me that it was psittacosis and “several other Parrots” had died on the same boat. The “several other parrots” were presumably imported by people other than the offenders of the previous year, and I feel very strongly that they might have had both the humanity and the ordinary gumption to see that their birds were sent over under decent conditions; for one thing is quite certain, and that is that you do *not* get outbreaks of infectious enteritis, *alias* psittacosis, unless birds are overcrowded in dirty travelling boxes.

TAVISTOCK.

WAXBILLS IN SUMMER

I want to broadcast what is an S O S and make a plea for the ending of an abuse. From May till September vast numbers of "Senegals" are offered as we know at prices as low as 2s. 6d. a pair, for some of the commoner species. I have bought many, but again and again, in spite of spray millet, insect food, oiled seed, and boiled water (not necessarily all these remedies at the same time), I find the death-rate appalling. Indoors and outdoors it is just the same. I give flowering grass, etc., but all to no purpose. I find that *all* the Waxbills, most Nuns, and quite a lot of Zebras (the latter, of course, aviary bred) are the victims; Orange Bishops and other Weavers being usually as "hard as nails".

In some cases the trouble seems to spread to acclimatized birds and British Finches, and even Java Sparrows, again Weavers being immune. The birds almost always arrive looking splendid, and at the worst wanting a few feathers; symptoms, a gradual puffiness, first *very* slight (herein the danger), frequently great hunger, and death in from two days to a week or even longer. There is generally *some* sign of scour, but in many cases very little. Last year I sent one or two victims up to an expert and was informed that it was pneumonia, but I keep all draughts away as far as possible. The autumn and spring bought birds do fairly well, even if just over.

I wish to ask, is my experience common to most people and if so has anyone found a cure? If it is common and no cure is forthcoming, then I say *re* my other letter, let us all draw up a circular letter signed by us as a body and send it to all the dealers, saying that we will not buy any of these little birds—say, from 31st May to 1st September, and let us do all we can to stop their importation at this season. It is heartrending that it should continue under these circumstances.

P. K. VENNER.

REPORTED MANNIKIN \times CANARY HYBRIDS

During the summer the rearing of two Tricolour Mannikin \times Canary hybrids was reported. The breeder was confident that the cross was as stated and he said he had two youngsters from one nest flying and another in another nest by the same father paired with a different Canary.

I was fortunate in being able to get into touch with the breeder, Mr. Allen, of Eastbourne, who invited me to come and see the birds. I saw the youngsters first, then nine weeks old and caged separately. At first glance it was obvious there was no Mannikin in their parentage; they looked like Linnet or perhaps Redpoll mules. The owner then brought down the parents. The father was an Alario Finch, not the Mannikin its owner thought it was. He is a novice with foreign birds and had based his belief on a small plate showing various Mannikins which he had seen. It was a great disappointment for him to learn the true parentage, but I have his permission to publish this, in order to prevent another record of a Weaver \times Finch cross (which is so far unknown) being left uncontradicted.

Alario-Canary hybrids have been quite commonly obtained, especially in South Africa.

E. HOPKINSON.

ZEBRA WAXBILL \times CORDON BLEU HYBRIDS

In August I saw two hybrids of this cross, which had been bred in a garden aviary in 1934.

The breeders, Messrs. Pears and James, of Beckenham, have given me the details of the event. The young were hatched on 1st August, 1934, and two young left the nest on the 18th; they were then mouse-coloured and showed a lot of whitish down. The parents took the young back to the nest every night for more than a week. The aviary was planted with bushes and the parents probably found some insects, but as food, only seed and a "biscuit food" was supplied. The "Goldbreast" cock seemed to sit on the eggs all day and the hen Cordon to be on duty at night. When anyone entered the aviary when the young were in the nest the parents seemed agitated and angry. The young showed no great change of colour till they were about six months old.

When I saw them they were a year old:—larger birds than the father, and about the same size as the Cordon, though not so slim in body. Looking at them from a distance no one could have guessed their parentage; the general colour above is a brownish shade like that of the Zebra Waxbill, while below they are yellow (chamois-yellow colour, not gamboge or orange) over the belly and lower breast, while across the latter runs a definite bar of brownish which sharply borders the yellow belly. On examination in the hand one finds that each bird has a crimson eye-streak over the front of the eye like that of the father, and that one has a suggestion of the Cordon Bleu's pink cheek-spot. No blue anywhere.

The parents had other clutches of eggs in 1934, and more in 1935, but none had hatched.

Soon after I saw them one unfortunately died, but its skin went to the Natural History Museum; the other is still thriving.

This success is particularly worth record, not only because it is the first of this cross (as far as I know) anywhere but because the young have lived a year, so very different to what, I am afraid, is usually the case with captive-bred birds.

E. H.

OBITUARY

NORAH, LADY DUNLEATH

I am sure members of the Avicultural Society will be extremely sorry to learn of the death of Norah, Lady Dunleath, which took place somewhat suddenly at Newbury Hospital, after a very serious operation. Lady Dunleath was a vice-president of the Society and had been for some years. She lived in Northern Ireland and was very keen on the keeping of birds. She had several aviaries with excellently thought out shelters, and always had the flights beautifully kept with shrubs and grass growing inside. She kept a good collection of Pheasants and various small foreign birds ; also had a certain amount of Ducks and Geese, which interested her greatly. Screamers she had at liberty in the grounds, which were very tame and looked most attractive. I am sure the members of the Avicultural Society will desire to express their sympathy to her family. She will be greatly missed, as one doesn't often meet with a woman who had such kindness of heart, consideration for others, and strong personality ; and the world is indeed poorer by her loss.

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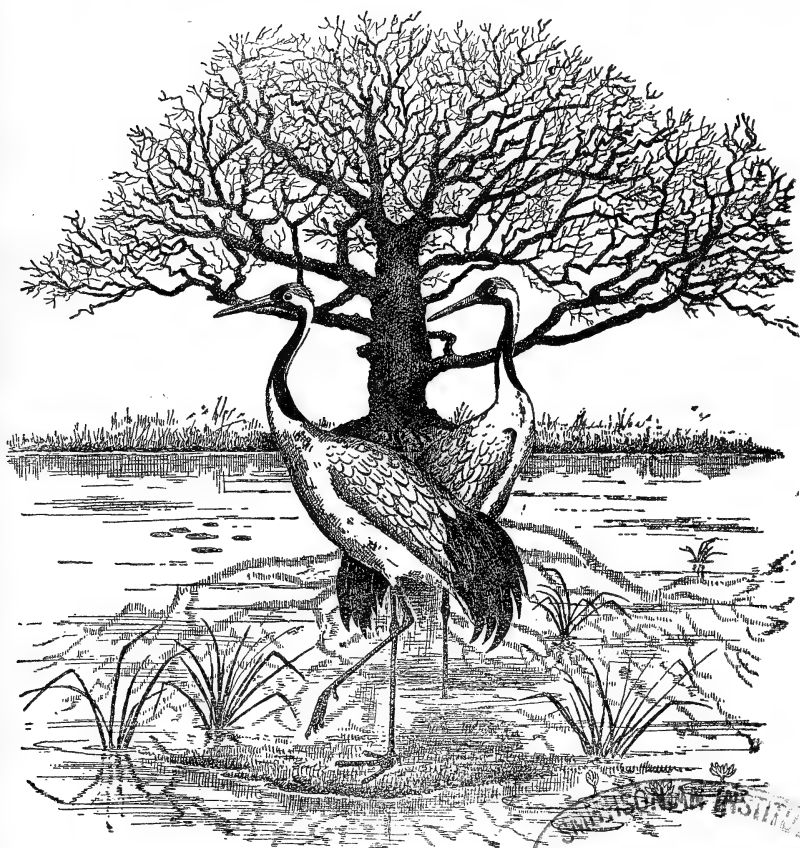
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CONTENTS

	PAGE		PAGE
Breeding of the Amethyst Starling, by M. AMSLER.	295	North Country Memorial to Viscount Grey	307
Breeding the Painted Finch (<i>Embla picta</i>), by A. J. PATTERSON	300	Editorial	308
Breeding Results from the Nash, by A. MARTIN	301	Reviews— <i>Every Garden a Bird Sanctuary</i> ; <i>Ornamental Pheasants</i> ; <i>Vögel Ferner Länder</i>	309
Notes from a Somerset Aviary, by Preb. J. E. SWEETNAM	303	Officers for the Year	310
		Correspondence, Notes, etc.	311



THE AVICULTURAL SOCIETY

FOUNDED 1894

Patron: HIS MAJESTY THE KING

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THE BREEDING OF THE AMETHYST
STARLING

By MAURICE AMSLER, M.B., F.Z.S.

When the late Gerard Gurney's collection of birds was offered for sale, I decided that I must have some memento of that very keen aviculturist. His favourites were, I think, birds of prey, Crows, and Starlings. I have not accommodation for the first two and so decided to buy a pair of Amethyst Starlings which eventually arrived here in the spring of 1934. They were a lovely couple and seemed none the worse in health or spirits for the change to my small aviaries from the sumptuous enclosures at Keswick. Beyond looking into a nest-box the moment they were liberated from their travelling box they made no attempt to breed that spring or summer. Sometime in August the cock, who had looked off-colour for a few days, was picked up dead and very much emaciated.

The hen wintered out in an unheated aviary and always looks perfectly fit ; these birds are a good deal hardier than is usually thought, and Monsieur Decoux, in a recent letter to me, expressed his surprise at the hardiness of this species.

During the past winter I advertised two or three times, without success, for an acclimatized cock, and in the end I wrote to our President, Mr. A. Ezra, who is always ready to help lame dogs over stiles. He very kindly let me have an odd cock and a perfect specimen he was.

When showing anyone my birds I always especially point out the cock Amethyst and he invariably evokes cries of admiration from visitors.

It so happens that his favourite perch is between the onlooker and the sun during the afternoon, and he much prefers to display his white chest—which is not what one wants—but with his back towards me I have often and often noted the most wonderful iridescence from black through brown to the most wonderful amethyst, and finally, occasionally, a shade which I can only describe as white—a reflection, I suppose, of the whole spectrum.

These birds are, in my experience, quite inoffensive though I have not kept them with other insectivorous species.

Towards small Doves, Quail, and even the smaller Finches they are absolutely harmless, even when feeding young.

Although the male arrived in March there was no sign of nesting until 18th July. Both birds were always quite friendly and the male usually uttered a little warbling song whenever his mate approached his perch. On the above date the hen was noticed to be carrying leaves which had fallen into the aviary from an overhanging willow tree. The site she had chosen was a Berlepsch Starling log made from silver birch, the entrance hole of which I had enlarged. It was quite 14 inches deep and the hen, of course, disappeared each time she took in her leaves. When reappearing she always sat peering out of the entrance hole for some seconds before flying out—a precautionary measure, no doubt, to make sure she was not being watched. This she continued to do much later when she was feeding her young and the cock did the same thing.

They were both very secretive in their family matters and always sat quietly on their favourite perch looking quite bored if they thought they were being watched. All our observations were made from behind a creeper some 20 yards distant.

As soon as I had observed this sign of nesting, I feverishly collected and spread around all the most attractive samples of soft hay, fibre, feathers, and moss, but the hen and later the cock persisted in the use of dead leaves—chiefly those of the willow. I should have mentioned that during July my man picked up an egg in the aviary which I did

not recognize, it was much like a Bullfinch's, of which I have two pairs of the Siberian variety, but it looked too large for these birds—and I thought the Amethyst Starlings would lay eggs of "Starling blue", but I must admit that my suspicions and hopes were aroused.

On 29th July I have a note that the hen had spent most of two days in the nest-box. I did not like to disturb her: moreover these boxes have an oak lid fastened down by four screws, which take time to undo.

Finally, on 2nd August, I drove and shut the birds into the shelter and inspected the box; it contained three eggs of a grey-blue shade, mottled with small rufous spots, especially thick at the blunt end. The nest was very low down, an extremely neat structure, built entirely of leaves. At this date the hen was extremely nervous and came off at the slightest sound. Repeatedly I crept up on tip-toe only to find her peeping at me from the nest hole.

In shape, colour, and movements she often reminded me of a Wry-neck at this period. I reckoned that she had been sitting since 27th July and that she might hatch about two weeks later, viz. on 10th August, when I should be away from home. My man, who knew what to look out for, noticed both birds carrying food to the nest on 8th August so one must presume that the hen began to sit before 27th July, or that the incubation is twelve days only.

On 12th August an ominous smell of dead bird was noticed near the nest, which was promptly inspected. The nest was quite sweet and clean and contained one chick covered with black down, and one clear egg—the other chick was never traced.

On the 13th and 14th both parents were carrying more leaves into the log and on further inspection the youngster was found with a sort of quilt of leaves surrounding him, and only his head sticking out.

On my return to Eton on 17th August I looked into the nest myself and found the chick about the size of a plucked Sparrow—he appeared to have climbed on top of the leaves recently added. The skin was dark pink, with well marked black quill areas on the back, wings, etc. On 20th August the quills were bursting and showing the feathers to be much the same colour as the hen bird, and the striation on the head was clearly visible.

I have made no mention of the food used by the parent birds. Mealworms were, of course, the chief and favourite item of the menu, but in addition quite a lot of clean gentles were taken, as well as live ants' eggs and hard-boiled egg crumbled up with cake crumbs.

During this time still more leaves and a little hay was added to the nest by the hen, presumably to raise the level of the nest and to facilitate the youngster's exit into the outer world.

On the 25th the chick was fully feathered, of a mouse-brown colour with dark buff streaks all over the back wings and top of the head, the general effect being darker than is the case in the adult hen.

On the following morning we found him sitting on the perch below the nest entrance—but on being approached he immediately bolted home and disappeared until 7 p.m. of the same day, when he was found perched on a ledge some 2 feet above his nest. Later on he flew down to the ground, but when disturbed flew up to his ledge again. His sense of orientation and his accuracy in landing on his perches were quite remarkable for a newly-flown chick.

I have already described the colour of his back. The breast is again much like that of the hen—but the ground colour pure white, instead of a sort of stone colour or light buff.

The nest being empty, I was able to examine it more minutely, and there was no doubt that its level had been raised 2 or 3 inches during the rearing of the chick, and also that hay as well as leaves had been added to the original nest.

The remaining egg was quite clear and empty, its dimensions were 23 mm. by 17 mm. For his first and subsequent nights he was driven into the aviary shelter and shut in for fear of rain storms or nocturnal cats, the flap over the shelter door being left slightly open, but so wide-awake was he that he soon learned to fly out through even this small opening, which had entirely to be closed in consequence.

For some reason I have jumped to the conclusion that this young bird is a male, although I much hope it will turn out to be a female. The sex, however, will not be obvious for another year at least. Other specimens which I have thought to be hens have, after twelve months, moulted into cocks, so it is quite impossible to be certain of buying a hen among newly imported birds.

Three days after leaving the nest the young bird was almost as big as his mother, but had an odd little cocked-up tail, which gave him a very perky appearance. Both parents, but chiefly the hen, fed assiduously—a few green cabbage caterpillars were used. Wasp grubs were not much appreciated except in the absence of other live food.

Both birds at this time warbled quite nicely and the male when excited had a habit, not seen before, of lifting each wing alternately, very suggestive of a man putting on his overcoat.

From 1st September onwards for a few days the old birds were often seen carrying dead leaves. No sign, however, was found of a new nest or of additions to the old one.

On the above date, much to our horror, we found signs of a rat working in the outer flights of their aviary and the next. Every sort of rat trap and gin was set in safe places, and I even took a dog into the aviary and sat up with a gun, but saw nothing of the marauder until some three days later when he was caught by the leg in a gin and promptly dispatched. He had gnawed and scratched his way up a 4 in. by 4 in. post which was a little rotten below the ground level.

We breathed again !

By the 7th September we deemed that our baby was no longer a baby, but independent, for he was frequently seen at the soft food dish. The parents swallowed most of the mealworms when each ration was thrown out, and by the end of the month he was only distinguishable from his mother by the absence of a leg ring, and by the fact that the yellow skin lines at the corners of the gape were just visible.

I am not aware that the Amethyst Starling has ever been bred before, either in this country or on the Continent ; at any rate, I hope not, for I should much like to earn one more medal for my last notable success at Eton.

Next year all my birds will, I hope, be more suitably housed on fresh ground in the open country, near Hawkhurst, in Kent, and I expect to have more success. When I first put up my present aviaries over twenty years ago my birds bred very well and several were "first timers". Of late only the easier species have done really well and I have

put this down to the fact that my ground was getting stale. The state of the soil certainly has a marked influence on the fertility of birds, and even on their willingness to go to nest at all ; and I do not believe that any soil treatment short of sterilization, which is impossible, is of much avail. Certainly the addition of lime and rock salts can have little effect beyond killing worms, slugs, and possibly fungi and protozoa—as bactericides they are much too weak.

Possibly these Starlings condescended to breed because they are entirely arboreal and show the greatest reluctance to alighting on the ground even to pick up a mealworm, but against this I have always had luck, even up to this year, breeding the Orange-headed Ground Thrush which spends much more of its time on the ground than on the perches.

It is more than possible that the proverbial “ beginners luck ” in aviculture is due to the fact that the birds are housed in new aviaries which naturally are erected on fresh ground.

BREEDING THE PAINTED FINCH

(*Embla picta*)

By A. J. PATTERSON

Apart from the breeding of a few Bourkes, Cockatiels, and Redrumps, season 1935 has been bad, probably due to mice and egg binding during the spring. A young pair of Peplars, bred here in 1933, laid four eggs, hatched three, and then failed to feed after two weeks.

I claim one success, however, in the breeding and rearing of the rare Painted Finch. I imported three pairs of these rare Finches last autumn at a very rare price. They arrived in splendid condition and without loss. One pair I passed on to another keen aviculturist, one pair I placed in the aviary, and the other pair I kept indoors in a box cage 6 feet long. I lost the hen in the aviary through egg binding. The hen from the pair indoors laid eggs from the perch and then in the seed pot. Finally, however, she took to the nest-box and laid four small white eggs which hatched on 6th August, after about seventeen

days' incubation. Both birds shared in incubation and very often both were in the nest together. I had no chance of inspecting the eggs during this period. This pair of birds would not touch greenstuff of any description nor egg food nor mealworms and seemed to survive only on millet. When their eggs hatched, however, gentles and mealworms were eaten greedily, but not egg and biscuit. On 10th August the cock bird injured himself and could not fly. August 12th, two young birds taken out of the nest dead, probably due to the cock bird being unable to feed. Two birds left the nest 22nd August. August 24th, gentles discontinued. Result young bird died. Gentles continued but were not eaten after 30th August. Remaining young one doing well and was able to feed itself on 7th September. Colour of young dark brown with a few red feathers on rump; the breast feathers being a little lighter brown covered with faint spots. The beak is black whereas in the adult birds the lower portion is red. It is about three-quarters the size of the adult bird.

Should other aviculturists be fortunate in securing a pair of these Finches it may be worth their while to note that live food seems necessary and that egg food will not do for a substitute. The pair of Finches kept in the large cage indoors required more heat than the pair kept in the heated aviary outdoors, although I do not think they will stand the winter outdoors without heat. Temperature of outdoor aviary during winter 45 to 55°. Heat required indoors 60 to 65°.

BREEDING RESULTS FROM THE NASH

BY KIND PERMISSION OF MRS. DUNN

By A. MARTIN

The very mild weather during the early part of the year followed by a very cold spell in April and May was all against the breeding of foreign birds. However, during late May many of the birds settled down in real earnest and several fine birds were reared. The following is a list up-to-date.

Bauer's Parrakeet : four eggs were laid ; all hatched and were successfully reared and proved to be very strong and lusty youngsters.

Pennant's Parrakeet : seven eggs were laid by the old pair ; six hatched and five were reared.

Quaker Parrakeet : this pair made a huge nest of twigs in the shelter ; four eggs were laid ; all hatched and were reared.

King Parrakeet : two clutches of eggs were laid, only to be deserted by the hen when on the point of hatching. This makes the second year they have acted in this manner ; I am quite disgusted with their behaviour.

Swainson's Lory : three eggs were laid and the hen sat well, but eggs were infertile. This was rather disappointing as I am sure they are a true pair.

The Barrabands, Browns, and Rock Peplers got no farther than visiting their nest-boxes.

Peafowl laid three eggs, one of them being eaten by the Sarus Cranes, the other two were hatched and were reared by a hen acting as foster-mother, and are, at the time of writing, full grown and strong chicks.

Californian Quail : many eggs were laid but only four were reared.

The Ducks which live on a natural pond in the wood did none too well, only the Falcated and Carolinas laying and nine were reared between them.

Monaul Pheasants : four eggs were laid ; two proved infertile ; the other two hatched, one being killed by its foster-parent, the other was reared.

The Cranes did nothing. We had great hopes of the Sarus as they were seen to mate on several occasions, but nothing came of it. Among the smaller birds a pair of Green Cardinals laid four eggs and three hatched : the old birds fed well for a week then left off feeding, no doubt owing to the lack of insect food, as they are in a mixed collection and I think the live food was eaten by the others.

Grass Finches laid and reared three young and the hen is sitting again.

Gouldians did not do well ; the hens suffering from egg binding no doubt being due to the late start.

Senegal Turacos laid two eggs during July only to be eaten quickly by the male. A further clutch of three was laid during August; both birds sat well but the eggs proved to be infertile.

Many new species have been added to the collection during the year including fine pairs of Crown Pigeons, Nocturnal Curucocoe's, White Aestic Cranes, and White Rhea's, and also a wonderful pair of Sun Bitterns.

NOTES FROM A SOMERSET AVIARY

By PREBENDARY J. E. SWEETNAM, Taunton

If one may judge by the occasional requests for, and appreciations of, articles and notes about birds neither very rare nor very difficult, it would appear that quite a number of our members may think it worth while reading such an article by one whose limitations of time and space thus restrict his avicultural activities. A preliminary list of species bred here this season will define the scope of this article. The numbers in parentheses after the species gives the number of breeding pairs, and the number following the young bred from them :—

Peaceful Doves (3) 20, Diamond Doves (1) 6, Red Headed Parrot Finches (4) 9 (to date, 13th October, pairs still incubating and rearing in inside aviary), Tricoloured Parrot Finches (1) 3, Parson Finches (1) 7, Olive Finches (1) 12, Cherry Finches (1) 8, Diamond Sparrows (1) 3, Aurora Finches (1) 1, Bengalese (about nine pairs, but mostly engaged as fosters for rarer species) 19.

Bichenow's (2) which reared several young last season have, for some unaccountable reason, produced only infertile eggs this. Black Seed, Diuca, and Mexican Rose Finches all nested, but either did not lay or failed to rear. My one pair of Pintailed Nonpareils nested but did not lay. As these are in perfect condition, and quite content with ordinary seed, I have good hopes of succeeding with them next season, and have held on to them when disposing of most of my other species, pending the erection of aviaries at Enborne, Newbury, whither I expect to migrate after Christmas.

I believe that this beautiful species is absent from the records of birds bred in captivity rather owing to the difficulty of getting them into proper breeding condition than to lack of prolificacy. If, as Dr. Macklin has now proved, those wildest of the wild, the Royals, can be bred without any great difficulty (except the rather vital one of securing true pairs) it is strange if the particularly steady and sociable Pintail should be as difficult to breed as is generally supposed.

I had better use such space as the Editor may consider this article is entitled to in adding some notes on the breeding of some of the other species catalogued above.

PARSON FINCHES.—After a mysterious disappearance from aviculture of a quarter of a century, a few pairs of this hardy and very prolific bird have recently been imported. Though only obtained in the autumn, my pair went to nest at once and, in an outside aviary at that, reared one youngster, which left the nest on Christmas Day. As was only to be expected under the circumstances, this was rather a weakling and did not survive for long. The pair went to nest at once on being put together this spring, and have gone on breeding and rearing almost incessantly all the season. They are amongst the easiest birds to breed as, except for a few mealworms, they ask for nothing beyond millet and canary with seeding grasses, though, in common with most species, they greatly appreciate live ant's cocoons.

In comparison with other grass finches they have the considerable advantage of being easily sexed by the wider bib and the darker grey of head and russet brown breast of the cock; but an even greater disadvantage of pugnacity and aggressiveness—so much so that it is impossible to include a cock with any other small birds, all of which he attacks with deliberate intent to injure.

On leaving the nest the young are very wild and liable to dash their heads against window or netting. Having lost one from my first brood in this way, I avoided further casualties by covering the windows with tightly stretched butter muslin—a wise precaution also in the case of young Diamond Sparrows. I did not find the parents at all liable to attack their young, even when left with them after the next brood was ready to fly.

I find the eggs of both Parson Finches and Diamond Sparrows can

be successfully incubated, and the young reared, by Bengalese and that, so reared, the young are no slower to reach independence or in any way inferior to those reared by their own parents.

In my experience, this does not apply to CHERRY FINCHES, the young of which were much longer leaving the nest, and generally weaker and longer in reaching independence, when hatched and reared by Bengalese. After deserting the young of their first two nests, my Cherry Finches turned over a new leaf, having since proved exemplary parents, and successfully reared three small broods since June: they are now incubating again. This is a fascinating and entirely inoffensive species which one hopes will be more freely imported and bred in future. They are as easily catered for as Parson Finches and require no live food when feeding their young. My pair constructed all their nests in clumps of bracken fixed in wide-mesh netting, placed high up in the aviary.

In comparison to seven young reared by one (imported) pair last season (and these obtained only about August) RED-HEADED PARROT FINCHES have been, so far, rather disappointing this season but they are rather late breeders, and it is quite probable some late nests will improve the present rather poor average. Two of my four pairs were late-hatched last season, and therefore rather immature for successful breeding this, but I am inclined to believe the results would have been better had I been able to provide separate aviary accommodation for each pair. I do not think breeding results need necessarily be affected by the inclusion of other small hardbills in the same aviary—provided, of course, there is no overcrowding—but cock Red Heads in high breeding condition are liable to harass other cocks, especially when they are pairing, and so tend to produce the infertile eggs which, rather than unwillingness to lay and incubate, was my chief trouble this season.

For the first time since keeping the species I have lost some young at the critical stage of a week or so after leaving the nest and when reaching the independence of their parents. With four pairs together in different stages of breeding activities it is difficult to avoid desertion by a pair wanting to go to nest again immediately but, with one pair to an aviary, I think the difficulty could be overcome by cutting down stimulating food for a week or so until the critical period has passed and the young were feeding themselves. Greater experience with

Red Headed Parrot Finches only confirms me in the belief that, apart from song, they possess nearly every qualification to entitle them to pride of place in any collection of small hardbills.

If I had any expectation that the Olympians who award—or otherwise—medals to ordinary avicultural mortals would condescend to notice the first breeding of a mere sub-species, I would proceed to invent details as to the structure of a nest built I know not where, the size and colour of eggs I never saw, and the feeding (from a choice of a very varied menu supplied for other species as well) of the New Hebridean sub-species of TRICOLOURED PARROT FINCH (*Erythrura trichroa cyaneifrons*) recently imported by Mr. F. Shaw Mayer. But fiction being, I fear, futile I may as well stick to facts and say that the one young of this smaller and much steadier variety simply “turned up” most unexpectedly, as the parents were only imported last spring, and gave no indications of being possessed of such prolificacy as to rear young by the following June. As once they show colour, there is no possibility of mistaking a Tricoloured for a Red Headed, and there were no other Parrot Finches in that aviary, there is no question that they did; and this achievement suggests that we have, in this sub-species, a bird at least as prolific as the Red Head which is saying a good deal.

An early moult, probably induced by the very hot weather, lowered the average young reared by both PEACEFUL and DIAMOND DOVES. I find the former just as prolific, and much less liable to molest their young on going to nest again, than the Diamonds. After a series of failures I have reared one young AURORA FINCH this season. I could not induce Bengalese to rear this species but I believe either Cuban or Olive Finches might do so successfully. If this species can rightly be classed as a Waxbill at all, it is one of the most desirable of the genus and, in a large planted aviary, the readiness with which it goes to nest and produces fertile eggs, combined with a remarkable steadyness and sociability, should make its breeding comparatively easy.

OLIVE FINCHES have again shown themselves to be amongst the most prolific of all small hardbills for, though the numbers in each nest were small, my one pair incubated and reared no fewer than five broods from April to September and would, I believe, still be breeding at the

same rate is the necessity of clearing their aviary had not induced me to part with them. The most remarkable thing about these pleasing and sprightly little birds was that they were generally rearing two broods at the same time and, more than once, they must actually have had young in two nests at the same time. The cock Olive is distinctly pugnacious with other species but his "bark is generally worse than his bite", and I have had no casualties on this head—though it is advisable to remove the young from the aviary about a fortnight after they have left the nest.

It may be worth noting that all the birds referred to in this rather disjointed article were bred in mixed collections, and most in an inside aviary (actually a bedroom in a disused part of this old Vicarage) with quite a small flight-cage attached to one of the windows. While those who, like the writer, have to regulate the scope of their activities by the amount of time at their disposal to attend to their birds may have to choose between a number of carefully selected species together, or a much smaller number in separate aviaries, from the point of view of breeding, the mixed collection is a makeshift rather than an ideal and, given the necessary time and space which I hope shortly to possess, the modest achievements here recorded might have been considerably greater.

NORTH COUNTRY MEMORIAL TO VISCOUNT GREY

The following appeal by the Natural History Society of Northumberland, Durham, and Newcastle-upon-Tyne will doubtless interest all aviculturists who were privileged to know Viscount Grey or who have read his delightful *Charm of Birds*. The late Viscount was President of this Society and had decided shortly before his death to issue a personal appeal to provide the Hancock Museum with funds sufficient to found a Trust Fund the income from which would be devoted to the endowment of the Museum. Viscount Grey at the last annual meeting over which he presided emphasized the great scientific and

educational value of the Collections in the Museum. He considered an endowment of £20,000 to be the minimum necessary to put the Museum into such a position that the building and the collections could be adequately preserved and the work of the Museum carried on in a satisfactory manner. It is to fulfil Viscount Grey's expressed desire with regard to the safeguarding of the Museum that this Memorial Endowment Fund is to be established.

All North Country folk are invited to respond to this appeal towards the foundation of such a memorial. Contributions may be sent to the Patron and President of the Natural History Society of Northumberland, Durham, and Newcastle-upon-Tyne at the Museum or to Mr. J. A. T. Middleton, Hon. Treasurer of the Appeal Fund, at Lloyds Bank, Ltd., Grey Street, Newcastle-upon-Tyne. Should intending subscribers desire to spread their contributions over a number of years they may do so.

E. F. C.

EDITORIAL

I should like to take this opportunity of thanking those members who have kindly written to encourage me on starting my editorial career. I hope they will forgive me for reminding them that my success or failure lies with them. If they will only send me articles and notes on birds, common birds as well as rare ones, the Magazine will prosper, but I cannot make bricks without straw. If through diffidence or indifference they will not put pen to paper we are bound to go down hill.

So please do not wait until you have a first breeding or other notable success to record ; people love to hear about other people's birds, their tameness and " ways ", no matter whether they are the commonest under the sun, or the breeding result which has been chronicled a dozen times already. All is grist to the mill and will fatten our rather lean numbers and cause your Editor's heart to leap for joy.

E. F. CHAWNER.

REVIEWS

EVERY GARDEN A BIRD SANCTUARY

This book¹ is an earnest plea for bird preservation, not only in places set apart for bird sanctuaries, but in gardens small or great throughout the land.

It tells us how to attract birds, which shrubs and plants provide the best shelter and most attractive nesting sites, and how to outwit their enemies. Our modern fashion of keeping hedges as low as possible deprives birds of shelter, food, and nesting sites, and spraying and washes are very like to poison insectivorous species. Where there is no water birds cannot exist, but those who have neither pond nor stream in their grounds can at least provide a shallow pan filled with water daily for the benefit of thirsty birds.

All these things and many more are clearly set forth and if they are carried out will bring birds and interest to the humblest plot.

We are instructed how to feed birds to the best advantage at the smallest cost, the cheapest and most suitable nesting boxes and where to fix them. In short, the book is indispensable to all who would like to attract birds but are doubtful how to set about it.

ORNAMENTAL PHEASANTS

Until a few years ago hardly anyone in England at all events made any attempt to keep, and still less to breed, foreign species of Pheasants. Now they have "caught on" and the Ornamental Pheasant Society, started only a few months ago, already has over a hundred members all pledged to keep and breed these most ornamental birds, to import new species and by so doing to save them from extinction, where owing to the march of civilization their native habitats are being "opened up" with the inevitable destruction of their homes and themselves which it causes.

¹ *Every Garden a Bird Sanctuary*, by E. L. Turner. Published by A. F. and G. Witherby, Ltd., 326 High Holborn, London, W.C. 1. Price 5s. net.

This practical little book¹ will be of the utmost value to anyone proposing to take up Pheasant breeding; had it been available when I was in charge of foreign Pheasants I should have achieved more successes and fewer failures.

The book is well illustrated by photographs from life.

VÖGEL FERNER LÄUDER

A PUBLICATION FOR THOSE WHO KEEP AND BREED FOREIGN BIRDS

Those of our members who read German, especially parrot fanciers, will enjoy the account given in this paper² of the nesting and rearing of the Cockatiel which is described with characteristic thoroughness and minute detail. A young bird is shown in photograph from a few hours after hatching and thence at intervals of five days until it had reached the age of thirty-five days. Full measurements and weights are recorded, even the eggs measured and weighed.

Other articles deal with Budgerigars, the nesting of the Grey-headed Love Bird, and now to distinguish the different varieties of Black Cockatoos by the formation of their mandibles.

OFFICERS FOR THE YEAR 1936

As member of Council: Hon. Anthony Chaplin in place of Miss Chawner.

As Editor: Miss Chawner.

As Auditor: Mr. S. Williams.

As Scrutineer: Mr. James B. Housden.

¹ *Ornamental Pheasants*, by R. J. Lambert. "The Pet and Livestock Series", Cassell and Co., Ltd., La Belle Sauvage, London, E.C. Price 1s. 6d.

² *Vögel Ferner Länder*, by Dr. H. Duncker, Bremen. Published by E. Schütze, Kassel, and Helmut Hampe, Brunswick. Price RM20.

CORRESPONDENCE, NOTES, ETC.

I am sorry the letters on bird importation have become personal.

Mr. Webb's letter seemed such a serious indictment of all dealers, particularly those who help the *MAGAZINE* by their advertisements, that I felt obliged to protest.

I believe the late Mr. Chapman was a member of the Society. His shop was beautifully kept and the men kind in every way with the birds. I saw some unpacked in very good condition.

Messrs. de Von too have sent me some lovely birds.

Your correspondent gave me the impression that *all* dealers were disgusting in their methods, and that no decent person should buy birds from them—even their name on the Magazine was a pollution! My small experience has been exactly the opposite.

I never part with my birds consequently my business with bird dealers has been on a small scale.

The above facts alone made me write to your paper as I did.

If I happen to see a seedy bird in a shop I always try to buy it and have occasionally had Fire Finches and the more delicate Waxbills sit with closed eyes for two days but a week's careful nursing cured them, and I have had them for nearly three years in gorgeous plumage.

In case any one cares to try it my method is this: Get a moderately sized cage with warmed sand and green turf on the bottom, line half-way up inside with fine hay and wrap the whole outside excepting the front with flannel. Keep a temperature of about 80°. They seem readily to take drops of milk or cream given by a paint brush held close to the beak. I let a drop fall on the beak and after that find the birds suck the brush eagerly. I sprinkle Indian millet and white millet on the bottom of the cage, and as soon as possible persuade them to take a mealworm. One has to watch them night and day. I prefer them in the house in front of a hot bright fire—it seems to revive them better than the pipe heat of the bird house. It means a *continuous* fire and constant watching night and day—but these trifles don't count where birds come in. It is such a joy to see their daily improvement.

If this experience is of any use to the sender of the SOS for Waxbills I shall be very glad.

MURIEL MAXWELL JACKSON.

Avicultural societies and Press were in the past far too blind to the inhuman cruelty inflicted by a certain class of bird dealer in the past. Our indifference towards this matter was the direct cause of the Buckmaster Bill being passed for we had little defence against the charges made. The condition of many of our British bird shops was simply disgusting and dangerous to health, and the fearful outbreak of psittacosis caused little surprise among the more thoughtful aviculturists. The manner in which newly caught wild birds were caged and handled in our shops and market places deserved corporal punishment. To see dying Greypates sitting huddled up by the dozen was a sight which produced the same feeling in the pit of the stomach as does a

slaughterhouse in operation. It was the same with the little foreigners. One could see cages containing scores of them, dying from dirt, food poisoning, and resultant diseases. I own over 200 birds but I would rather have aviculture prohibited than witness the wholesale cruelty formerly practised by certain inhuman dealers. In this respect neither the R.S.P.C.A. nor the police have shown much activity. Personally I should like to see the subscription to our Society raised in order that a qualified inspector could be permanently employed upon investigation. Cruelty in capturing and transporting South African birds resulted in the Col. Reitz Bill prohibiting their exportation. Like the birds of Miss Muriel Maxwell Jackson my aviary birds seldom leave the garden after escaping. One cock Wild Canary which has sired three nests of young this year can be trusted out at any time. He has a good feed of wild seeds and then demands to be let in.

H. MOORE, F.Z.S.

Some aviculturalist more experienced than myself and with pen more able might well reply to Mr. Webb's provocative article in the August issue of the *AVICULTURE MAGAZINE*. At the same time I realize that those best qualified to answer may well be debarred by circumstances. Those whose income is even in part derived from dealings in birds must be prejudiced, whilst our well-known experts who keep birds on a large scale cannot be expected to view with impartiality any threatened interference with their hobby.

Most interesting and most timely are the views of one so independently placed as Mr. Webb, whose knowledge and skill in placing on the market exotic rarities in perfect condition is probably unequalled. At the same time some of his remarks must not go unchallenged, if only because they are unfair and may some day be produced as evidence against our hobby.

For my own part I am but a dabbler. My few birds are kept for the pleasure they give me, for the joy of domesticating them, of studying their heaven-sent beauty, hearing their joyous song, and for the delight that possession of any beautiful living thing brings to a lover of nature. That I have shown a few birds occasionally is but that others may share some of my pleasure, to show some proud possession, or to make comparisons of my own methods with those of other fanciers who can meet together only at such shows. This, I verily believe, is typical of the attitude of the majority of those who keep foreign birds.

As for making financial gain out of showing birds, I should like Mr. Webb to tell me even how to make it pay its way! A rapid calculation will prove that all the prizes offered during the show season would not suffice to provide the requisite collection of birds, house and keep them, and pay for travelling expenses. The exhibition of foreign birds costs their owners money. All honour to them that they are willing to bear the cost of showing their treasures to others—and not least, remember, to the general public.

The keeping of birds is educational and has psychological value. To children the hobby teaches not only geography and allied subjects, but also the importance of unselfish kindness to animals, and a deep appreciation of the

beauties and glories of nature. Few will accept the statement that fanciers are ignorant and careless of all knowledge concerning the natural conditions of their birds. My own experience is that bird lovers are eager to learn all that they can about birds in their natural habitat as well as in conditions of captivity. The scientific knowledge of many is profound. One has but to look at the demand for literature, such as books new and old, or to examine the weekly journals, to find proof of that.

But Mr. Webb's chief criticism is of the methods of importing birds in vast numbers, by inexpert and unskilled attendants, involving cruelty and needless loss of life. Whilst everyone must agree with any suggestion for improving these conditions, I do believe that they are fast disappearing under the insistent demand of purchasers for birds in the best possible condition. After a tour of London dealers lately, I could not but remark upon the excellent appearance of the majority of birds exposed for sale, nor upon the varieties on offer which only a few years ago were considered rarities and difficult birds to keep. Yet these birds are on sale to-day in almost perfect feather and condition. Dealers know that it is of little use offering anything but birds in first class order, and what is it but those very shows that Mr. Webb so uncompromisingly condemns that are responsible!

We all realize that the tendency in this country and abroad is to increase restrictions on dealings in birds; not, let me disagree again with Mr. Webb, upon the keeping of birds, but upon the trade in them—a very different matter. We shall find it increasingly difficult to obtain birds as years go on. It should be the duty of societies such as ours to heed the warning and be prepared. Let us not condemn ourselves, but rather take active steps to improve all conditions that remain open to criticism.

Let us not attack the bird *lover*, but concentrate on the bird dealer who regards birds merely as a commodity, and who is not himself a bird lover. Such do exist, despite the shining example of the many whose life interest is the birds they handle. Why should not such a society as ours exercise some supervision over traders? Let there be a list of approved dealers and, if need be, a black list of unsatisfactory ones. Membership of most societies carries with it obligations. Why should not membership of the Avicultural Society involve the obligation of purchasing under only approved conditions? There might be a system of voluntary registration by dealers, premises and methods of importation being under the inspection of the Society's accredited representatives.

If this system should fail, then it is but a step to supervise importations on our own behalf, or to specify conditions which alone will meet with our approval. In this connection it strikes me that Mr. Webb is the very man to tell us how to proceed.

In his plea for the alterations in the presentation of the Magazine Mr. Webb will surely find a large following. We should all like to see it enlarged and on sale to the general public through the usual booksellers. The more people who can be interested in the hobby the better for the future of aviculture. Presentation of a magazine on such lines should not be difficult, but would demand such an enormous increase in production costs that it is extremely doubtful if the increased sales would render the venture self-supporting.

Increased encouragement *must* be given for the breeding of birds in captivity, rather than for the collection of new and rare specimens. Local societies, show secretaries, and national societies are those who can be asked

to assist in this. It is very rarely that one sees a class in any show reserved for cage or aviary bred birds, yet this is the department of foreign bird keeping that must be developed if we are to retain anything at all of our hobby. Let us start now before it is too late.

J. E. HAINE.

The following extract from a letter received from Miss Maxwell Jackson is published with her consent.—ED.

Referring to the Parrot Ban it seems nothing short of tragedy that bird lovers and aviculturists here should not be able to keep these most beautiful birds because owing to insanitary importations they are diseased.

I heard of some inexpensive rough land in Bedfordshire the other day and wondered if I had bought some of it and allowed the free use of it as a quarantine station for aviculturists, whether, by all societies joining forces, it could have been arranged. A bungalow and someone in charge and parrot-like birds to be brought straight there by aeroplane and not allowed to leave unless perfectly healthy.

Another idea would be to have some such place outside the chief exporting town, say in Australia, the birds brought and someone in charge who would see all were healthy and hand them over to a thoroughly responsible person and see they had every comfort on the journey. If it could be made to pay expenses, perhaps we might have something of the kind in India and other places.

I hope if any of the above suggestions are possible no prohibitive prices would be charged; only sufficient to pay the expenses of each bird sold. Aviculturists could charge anything after purchase, but this should be only a national health insurance against psittacosis.

If such a scheme is ever started and funds wanted to run it on a lasting and practical basis, I should be very glad to contribute £50. It possibly would not go far but there are so many eager to help and one would be so thankful if the troubles that beset us could be even partly cleared away.

MURIEL MAXWELL JACKSON.

MEMBERS' ADVERTISEMENTS

The charge for Members' advertisements is ONE PENNY PER WORD. Payment must accompany the advertisement, which must be sent on or before the 20th of the month to MR. T. H. NEWMAN, 46 FORTY AVENUE, WEMBLEY PARK, MIDDLESEX. All members of the Society are entitled to use this column, but the Council reserves the right to refuse any advertisement they consider unsuitable.

SALE AND EXCHANGE

WILL someone kindly exchange a cock Peter's Spotted for one of mine (first nest)?—MRS. DRAKE, Mylor, Falmouth.

BUTLER'S *Foreign Finches in Captivity* (second edition), £5 or offer; *Avicultural Magazine*, 1928 to present, bound, 10s. per volume.—MISS PORT, Twisly, Catsfield, Battle.

VIOLET-EARED WAXBILL (hen), acclimatized; also few other healthy foreigners—MRS. WOOD, 8 Lambolle Road, N.W. 3.

AVICULTURAL MAGAZINES, complete set, 1895–1930; superb condition; clean; unmarked pages; all good as new; 42s. for 1895, rest 15s. a volume.—W. S. ROWE, St. Lawrence, Lansdowne Road, Torquay.

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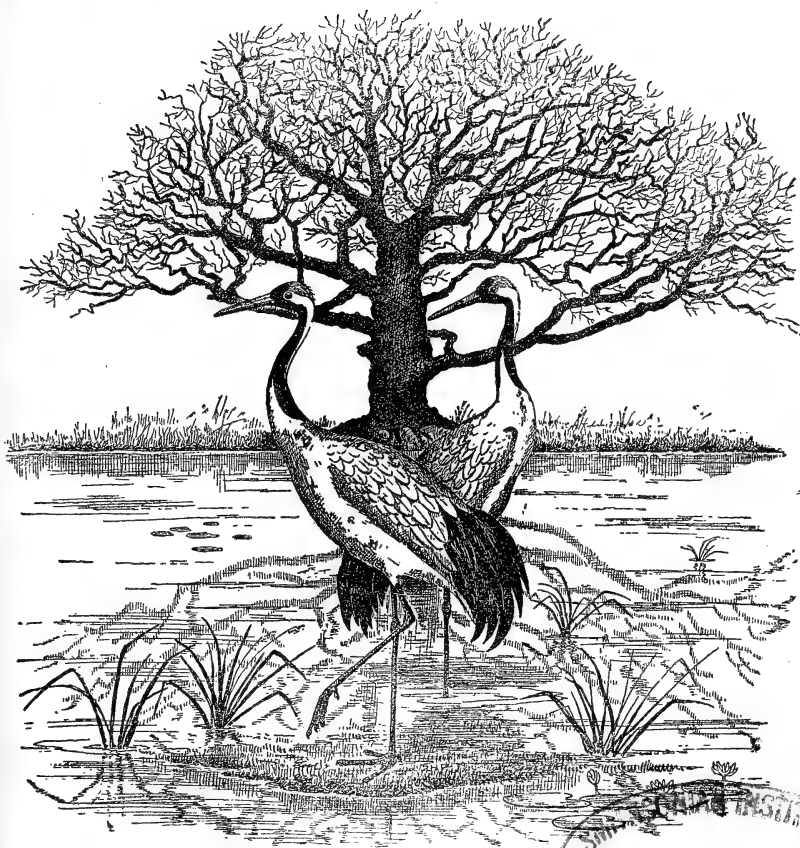
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CONTENTS

	PAGE		PAGE
The Plumhead Finch (<i>with coloured plate</i>), by E. F. C.	315	Parrakeet Breeding Results at Foxwarren Park in 1935, by ALFRED EZRA	330
A Collector on Melville Island, by WALTER GOODFELLOW	316	Summary of Breeding Results in South Australia, by H. S. SEWELL	332
An Amateur Bird Photographer Meets a Humming Bird Family (<i>with plates</i>), by CARL NÄTHER	325	Ornamental Pheasant Society	334
A Tame Troupial, by Mrs. GODDARD	329	Review— <i>Nature in the Wild</i>	335
		Correspondence, Notes, etc.: The Future of Aviculture	336
		Index	357

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Plum-headed or Cherry Finch
Aidemosyne modesta.

THE AVICULTURAL MAGAZINE

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THE PLUMHEAD FINCH

(*Aidemosyne modesta*)

ALSO CALLED CHERRY FINCH AND MODEST GRASS FINCH

This pretty little Finch is found in New South Wales, Victoria, and South Australia, where it is not uncommon. In the wild state it builds a domed nest of dry grass lined with feathers, in a low bush. Five eggs are usually laid and they are white. It has been bred in England.

This is one of the hardiest and most easily managed of the Australian Finches and could probably be kept out of doors, provided its aviary was well planted and sheltered from cold winds. In the plate the upper figure represents an immature bird, the central one an adult male, and the bottom an adult female.

E. F. C.

A COLLECTOR ON MELVILLE ISLAND

By WALTER GOODFELLOW

Since my recent return to England, when I have said I had been to Melville Island, in nearly every case I have been asked "Where is it!" Therefore for the benefit of those who read this and are equally hazy about its geographical position, I may as well commence by saying that it lies in the Timor Sea, 80 miles due north of Darwin in the Northern Territory of Australia and in extent is roughly 80 miles by ninety.

Darwin used to be called "one of Australia's backyards". Now it is on the air route they call it "Australia's front door". It is hardly a town in our sense of the word, but a very straggling settlement overgrown and dust-laden, and certainly as a "front door" needs a vast amount of clearing up in more senses than one, for life is very primitive there.

To go to Melville Island I had to go by the monthly schooner belonging to the Catholic Mission on Bathurst Island. The narrow Apsley Straits divides the two islands, and if these could be pushed together, all the bends would fit in exactly like the parts of a jig-saw puzzle. No white people live on Melville, and only the mission fathers on Bathurst. The island is flat, rising to a ridge of slightly higher land in the centre, and where it is not swamp, it is covered with what the Australians designate bush. This bush is ugly decrepit vegetation, mostly ill-grown, and has almost without exception harsh and brittle foliage. There are some fine and well-grown trees, but they carry a mere handful of leaves, and all of a general grey green tone throughout. As most of the leaves hang vertically, there is little shade. Half the amount of bush and trees over here would make delightful shady woods, but there one might as well be out in the open for all the shade one gets. In the breeze there is no gentle rustling of the leaves as in our woods; instead it is a rattle. There is not much undergrowth, and that consists chiefly of the long saw-edged scrub pandanus which lacerates one at every step, and in the wet season, long coarse grass in addition. As far as the eye can see through the bush, it is a wilderness of bleached tree trunks great and small. Such is the scenery of most of the island,

and you might move 20 miles and not know you had gone more than one for all the change there is in the landscape. Around the coast, green looking mangroves give a false impression of the interior, but there is a strip down the west coast bordering on the Apsley Straits, more dense and tropical looking, but elsewhere there is little to suggest the tropics as most people picture them.

On arrival at the mission station I hired their schooner to take me and my baggage some 50 odd miles along the south coast of Melville to avoid having to walk that distance on foot, and from where I was set down I walked 8 miles inland to camp. There are great numbers of blacks on the island, but they have a bad reputation and they roam from one camping site to another, as the last one gets too insanitary, even for them, and game gets scarce too perhaps. They make no habitations, and cultivate nothing whatever, just living on the game they kill. They are treacherous and great thieves and generally useless. The majority of both sexes are clothed as they were born. I got to dislike them very much, and for my part (and many others agree with me) I should rejoice to hear that the last black had died out in Australia. They are annihilators of all game, and the fauna of the country is so unique and wonderful, that personally I consider it far more worthy of preservation than the "abos".

At the time of my arrival two young white men were on the island collecting snake skins and dingo scalps; the latter for the Government reward of seven and sixpence each. The snake business had slumped. So neither stayed long after I got there, but within a few months the blacks had brought them in over nine hundred large carpet Jyshors alone, and yet during the few months I was there, I never came across one. Such is my luck who love snakes, and yet I seldom meet them wherever I go, while other people who loathe them seem always to be running into them, or say they do. A man in Darwin who was said to be a noted snake catcher promised to bring me "mobs of them" but never brought one, and yet you hear the place is overrun with them.

I made my camp close to the white men's. I had met one of them in Darwin, and he had walked all the way to the Apsley Straits to meet me.

Melville Island is a wonderful place for birds, and without the blacks would make an ideal sanctuary. I cannot see that it is much good for anything else. During the wet season the whole island is water-logged, and in the long dry one hardly a drop except swamp water to be found. I arrived there at the beginning of the wet season which was very late this year, and at times had the camp entirely under water, but the dry period had well set in before I left, and the stream I got my water from was then beginning to be nothing more than a few water holes in the deeper parts, and most of these would disappear too in time, and the rest become contaminated by the blacks and wild animals. I therefore cannot imagine anyone except a bird enthusiast like myself ever wanting to go there. I went solely to collect rare ducks and geese which breed there, so, with only two exceptions, I brought no other birds away. The ducks took up all my time as I had to hand rear them, and I thought if I got a permit to bring these out of Australia, which I did, it was as much as I could expect, and I am extremely grateful to the authorities for granting it. There were many lovely birds that I should have loved. The natives are no good at all at catching birds. The only time they can get them alive is during the nesting season. The white men told me they then brought in billycans full of young Cockatoos, Parrakeets, and other birds every day for food. These I am sorry to say are generally thrown on the fire alive. People at home possibly never think of the enormous amount of cruelty that goes on daily in every part of the world among uncivilized people, and what birds and beasts have to suffer at their hands. I meet with it wherever I go.

I was constantly surprised at the number of beautiful and interesting Australian birds still unknown to aviculturists over here. I suppose when the exportation of birds was unrestricted, more attention was paid to the Parrakeets and Seed-eating Finches, to the exclusion of the still more interesting insectivorous and nectar-feeding kinds, of which there are innumerable species. How I longed when some fresh bird came around the camp, for a bunch of ripe bananas to hang up nearby, just to see what I could attract. I fancy I should have had half the denizens of the bush come around. I used to do this in parts of South America, and it was surprising what unlikely birds it attracted. On Melville there is no fruit to be had of any description, neither did I see

a flower during the whole of my stay. It was too early for the wattles. I often wondered what the lories and other honey-eating birds found to live on.

Flies were a terrible pest, especially during the wet season. They seemed to come in millions and daily drove one to desperation. This is a phase of Australian life we hear very little about, yet away from the cities, I suppose there is no other such fly-ridden country in the world. At any rate I have not yet met with it. As evening came on they secreted themselves in hundreds among the bed clothes and dry garments which were about, and even in the washing hanging out to dry. The only thing to do was to put everything away in closed sacks, and all blankets well tucked up under the mosquito net, otherwise everything was stuck together with masses of eggs. They even got into the sleeping boxes of the ducklings and covered them with lumps of eggs, some of which hatched out into maggots before morning, until I started to tie mosquito netting over them every night. I found some of the Ducks a piteous sight in the morning. It was almost impossible to clean the eggs off without hurting the birds, and please don't think it was because the Ducks were dirty. They were kept scrupulously clean, both themselves and their night quarters. I cannot attempt to convey to anyone the work and anxiety the plagues of flies caused. They were less troublesome as the weather got drier.

At one side of the camp stood a very tall dead tree, and like all others there, bleached quite white. At first I thought it unsightly but soon changed my opinion for it gave me endless interest during the whole of my stay there. As it stood higher than most of the other trees around, it was the resting place for most birds passing by, great and small. One of the first evenings I was there a flock of quite thirty Black-headed Ibises settled there, and it was with difficulty I kept one of the fellows in the next camp from firing at them. I told him he could not eat such birds, but he said he "only wanted to see what they looked like" I think now he might have eaten them, for he had gone quite native like so many men in the Northern Territory, and I found later they eat snakes, rats, lizards, bats, the large grubs from rotten wood, and even dingo. As the tree was on my camp I considered it my property and my right to protect its visitors. After a rest the Ibises flew off,

but returned again at dusk and spent the night there. For several nights after that just a pair rested there, until one night they found two Wedge-tailed Eagles in possession and never came again. Eagles were very numerous in my part of the island, also many species of Hawks great and small. I put it down to the fact that there must have been a great many dead kangaroos in the neighbourhood. One of my neighbours went out hunting every day with a rifle of a bore far too small to kill a kangaroo, unless hit in a vital part. He never followed up a wounded animal, and seemed to take it as an insult they did not wait for him to get close to them. When he came back empty handed he told me how many he had wounded; some of these I used to see later, half eaten by dingos, or birds of prey. Kangaroos were very numerous, and on more than one occasion ran right through the camp chased by dingos. The latter however stopped short and turned back when they saw a human being about. I saw kangaroos about the camp several times on moonlight nights, from where I lay in bed. Dingos howled around nearly every night.

Eagles were very fearless, and took absolutely no notice whatever of my presence. They were often mobbed by the Lemon-crested Cockatoos, and when the former settled on the dead tree, the Cockatoos alighted on the highest branches of other trees at a respectable distance, keeping up an incessant screech until the Eagles moved on.

The sunsets were really marvellous, and at this hour the whole bush took on quite a different aspect. The whitened and unsightly trunks then looked on fire, especially my dead tree, when its grotesquely twisted branches looked as if they were writhing in the agony of burning.

The commonest member of the parrot family was without doubt the Red-collared Lory. I often think of one evening at sunset, when a flock of perhaps a hundred settled on the dead tree and it looked as if it had suddenly burst into gorgeous bloom. Large numbers were always around the camp during the whole of my stay. It is also a very common bird in and around Darwin and shows little fear of man. The proprietress of the hotel there had some in an aviary at the back, and I often saw numbers of the wild ones clinging to the netting trying to get in. Last June a lady had some young ones brought in which she

was rearing by hand. This is mid-winter and not the nesting season as quoted in some Australian bird books. I will mention others nesting too later. In the Northern Territory they call these lorries "Blue Hornets".

The pretty little Varied Lorrieket (*P. versicolor*) certainly came second as far as numbers were concerned, and was equally common around Darwin during the wet season, but not many in the dry period. When the wattles bloom they appear again in incredible numbers. They fly high and with a very rapid flight.

The commonest Parrakeet on the island was the Crimson-wing, and beautiful as they are over here, how still more beautiful and vivid they looked on their native soil in that blazing sunlight. Their flight is irregular and quite different to most other Parrakeets. I often mistook them for Hawks. They again are very common around Darwin, in every garden and backyard, and along all the main roads through the settlement. In June and July, when everything was burnt up, they were feeding on the dry seed stalks of horehound, which grows from anything up to 8 feet high along the chief thoroughfares, and on every bit of vacant land. I noticed great numbers of immature birds among them there, but all were very tame and allowed me to approach within a few yards; in fact they remained feeding at a less distance than that if you walked straight on and took no notice of them. When feeding they are very silent, and it is possible to pass them by, unless the bright colours of the adult birds betray their presence among the dust-covered, dried up vegetation.

When first I arrived in Melville the lovely Hooded Parrakeets (*Psephotus dissimilis*) were fairly common, but I never saw one after the end of March. It is not found on the mainland near Darwin, but in certain districts farther inland. There it is called the Golden Shouldered, which is incorrect, and which comes from Arnhem Land at the south end of the gulf of Carpentaria. I am not sure that I have ever seen a true Golden Shouldered, unless a pair Mrs. Johnstone had at Rougham Hall many years ago belonged to this species. I often think now they did.

A far more common bird was Brown's Parrakeet, and I think from what I have heard trappers say about it on the mainland, it must

have been much more numerous on Melville. They were around the camp every day during my stay in flocks of six or seven, or in pairs only, often sitting still for a long time at a stretch. Although they are not found near Darwin, they are well known there, and many people kept them. They are called Smutty or Black-headed Rosellas.

Black Cockatoos (*Banksians*) were fairly numerous. I often came across them, sometimes in pairs, or as many as eight together. They are real acrobats in the trees, and seem to thoroughly enjoy life. They are fond of clinging to the bark of gum trees, and stripping off large pieces ; probably searching for grubs. Many times they rested for a while on my dead tree. Someone told me they had seen them preparing to nest near Darwin in July.

The Lemon-crested Cockatoo was everywhere and always very frisky, especially in the evenings, and sometimes when it was too dark to see them. Up in the north they seemed to have much longer crests than those from the south. They had many in captivity in Darwin, and I thought I had never seen any with such long crests before. I knew of one an absolute champion in this respect.

The Bare-eyed Cockatoo (*C. sanguinea*) was likewise a common bird on the island, and nothing like so noisy as the former species. Their flight is slightly different too. Twelve rapid flaps, followed by a very long glide. By this alone I could always distinguish them, even in the far distance, and unlike the others, they are silent when flying. The blacks, both on Melville and Bathurst insisted this is the female of the Lemon-crested species. This again bears out what I have found in many other countries : that the natives after all know very little about their own birds. I have often heard people say "the natives know all about them you may be sure, much better than we do". But they don't. They know their habits so far as the right places to look for them, and their nests too perhaps, but they are only interested in all these creatures from a food point of view. I have had examples of their ignorance over and over again, relating to mammals, birds, reptiles, and insects.

The Bare-eyed Cockatoo is far less suspicious than the Lemon-crests. They often settled in the dead tree, and stayed there even when I was moving about directly below—a thing the others never did.

I heard some excellent talkers of this bird in Darwin. When I first arrived there in January there was one flying about the place. It visited most of the houses, alighting on the window-sills and verandahs. On Saturday afternoon it was quite a nuisance on the football ground, settling on the goalposts and flying in and out among the players, so much so, that I always expected to see someone lose their patience and knock it down. I understood that this bird had appeared in Darwin during the last three wet seasons only. It had cleared off again before I returned from Melville. I should think it had escaped from captivity at some time. In many of its ways the Bare-eyed resembles Goffin's which come from the islands farther north.

Of all the birds on the islands to attract the most attention, with the possible exception of two species of Doves of which I shall have more to say later, were the Friar Birds (*Philemon*). Not because of any bright colours, for they are clad only in brown, but because of their numbers, and above all, their more than peculiar voices. They were all over the place, and I am safe in saying that there was not a daylight hour when they were absent from around the camp. I think I made out three species, but as I never shot any I can't be quite sure. They were *P. corniculatus*, *P. argenticeps* and *P. gordori*, the last peculiar to Melville Island. Some of their notes are fine, but repeated so incessantly, they became irritating, and some others loud and half-human like a maniacal cry. When they were just chattering among themselves, I often thought they were human beings talking in the bush. On wet days they were silent, so we had something to thank wet days for. They are not in the least shy of human beings, and continued their constant search for insects on every leaf from the highest trees to the lowest bushes, and sometimes among the grass. They never failed to mob the Ravens whenever any came around the camp. These are the birds they call "Feather Heads" in Queensland.

A bird I admired above all was the Blue-faced Honeyeater (*Entomyzon cyanotis*). It is as large as a Jay, and more beautiful than any plate I have seen of it. Although placed among the honeyeaters, one can hardly imagine its thickish bill sucking honey from flowers. It seems much more adapted for eating fruit and insects. Parties of six or more often visited the camp, and remained for an hour diligently

searching the bushes for insects, especially the pandanus which seemed to attract them the most. They also flew straight at the trunks of trees, alighting on them after the manner of a woodpecker, or hanging by their strong claws from branches to examine the bark underneath. A very conspicuous yellow patch shows up in the wings when they fly. I think this is one of Australia's most lovely birds, and worthy of a better setting than this unattractive island where it is only seen by the blacks, who, if they caught it would only throw it on the fire, feathers and all. It of course is found on the mainland too, and I believe I saw a pair in the Melbourne Zoo two years ago, in a wilderness aviary where it was not easy to get a view of them. I should certainly love to see some over here, and to be able to enjoy them often.

I wish I knew the name of a bird which flew with a very fluttering flight high over my camp every day; always singly, and calling Tea-cher, Tea-cher, in a high-pitched voice. Even with strong glasses I never could identify it against the light.

Many birds came around the camp with beautiful voices, but an unsustained song. Some notes led one to expect great things, but ended in nothing more. One, however, was one of the most lovely songsters I have ever heard in any land. Here again I was unable to identify it although it came a number of times. I think always the same bird, as it sang from the same bush each time. I think I only caught a glimpse of it twice. It came during the hottest hours of the day, and remained in the seclusion of some bushes rather low down. Directly I moved out to look it was silent and I imagine dropped to the ground and made off among the long grass and undergrowth. If I saw the right bird it appeared to be as large as a thrush, but perhaps thicker built and of a more or less uniform grey or brown, but of this I am not sure as it hid itself so carefully. It seemed to me as if such a song was out of place in those hard and unprepossessing surroundings, and more suitable to shady green lanes and woods. It showed at least that Australia has some song birds as good as any elsewhere if I had needed a proof.

(To be continued)

AN AMATEUR BIRD PHOTOGRAPHER MEETS A HUMMING BIRD FAMILY

By CARL NAETHER

On a sunny Sunday afternoon in March, an amateur gardener and I were joyously exclaiming over the beauty of the camellia blossoms in one of California's rare plant gardens. Truly it was a gorgeous sight—literally hundreds of large, rose-like flowers in white and in shades of pink, red, and rose set among the shiny, dark green leaves of these splendid evergreens. Suddenly my companion pointed to a very small, cup-shaped something, made of plant-down and fine mosses, and bound together with cob-webs: "Why, there's a humming bird's nest!" A look into the nest, which was only approximately 4 feet above the ground, disclosed two tiny white eggs, in shape elliptically oval. Since there were many other visitors in the camellia gardens, whose attention we did not wish to attract to our find, we left the vicinity of the nest without further delay.

As an amateur bird photographer of long, though to be sure not very high, standing, I decided at once to secure, if possible, a series of close-ups of the Humming Bird's activities about the nest, though each time I went it would mean a 30 mile drive and the better part of half a day. As a matter of fact, my wish to photograph such a nest was of many years' standing. Only last summer I discovered a similar nest in a live oak far up in Spanish Canyon. Alas, the nest was not only too far off the ground but in other respects altogether unreachable.

The following Sunday I rose early so as to arrive at the gardens hours before a curious public had opportunity to observe me about the nest. The moment I came within sight of it, I heard the familiar "Zst, zst" and knew that all was well. Madame Humming Bird was busily incubating her little white eggs. Her mate I did not see once. My hopes ran high. Would she stay on the nest and let me come sufficiently close to get a good likeness of her? As if answering my query, she flew off the nest immediately, disdaining to have anything to do with me at such uncomfortably close range. Quickly I set the tripod and camera up, for I did not want the tiny eggs to get chilled in the cool morning

air, having before attached a long, dark-green string to the shutter release.

Then, string in hand, I hid behind a camellia bush about 5 feet from the nest, ready to "snap" the little brown bird mother the moment she should resume her brooding activities. After a little time she came whizzing through the air. She discovered me first of all, flying anxiously about my head. Then she inspected the shiny legs of the tripod, and lastly the camera—that big, black intruder with the immense, staring eyes. Flash—and she was gone, only to return for a second scrutiny of the camera. Once she was tempted to stick her long beak into one of the shiny lenses and another time she almost perched on the "line of release".

Suddenly with a "Zst, zst", which probably meant "My eggs will get chilled if I leave them uncovered any longer", she alighted not on, but *in* the nest, nervously turning her head this way and that half a dozen times before settling down to the business of incubating. Her brownish colour blended with the dark-green foliage of the camellias. Fortunately she turned her head toward the camera. The nest could be photographed only from one side—unless, of course, I chose to cut away the leaves and branches shielding it, which I did not care to do. The light was fairly good on that somewhat murky March morning. It was further dimmed by the lattice roof of the garden house (camellias must have shade in order to thrive). I had set the lense opening at eight and the shutter speed at 1/5 second. Slowly I began to pull the long string so as not to frighten the bird whose eyes were fixed on the camera. The moment she saw the string move she was gone with a whir and a "Zst". Quickly I stepped up to the camera to see that everything was still in proper readiness and then resumed my watchful waiting. Soon the bird returned, flying several times about the camera before alighting on the nest. This time it was not the moving string which disturbed her, but the click of the shutter. During the succeeding exposures, however, she stuck to her guns, so to speak, and did not leave the nest till I approached it to make the camera ready for the next exposure. Of the half dozen snapshots showing nest with eggs, the one accompanying this sketch turned out to be the most satisfactory.

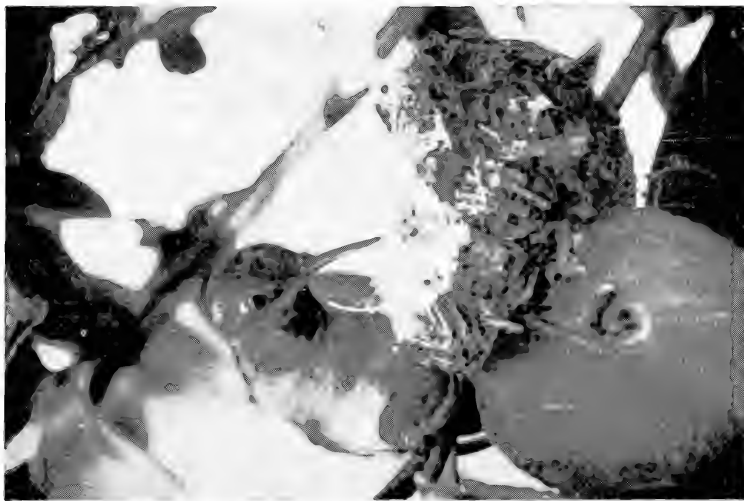
Bright and early the following Sunday, I returned to the nest



1.—Humming Bird's nest with eggs.



2.—Humming Bird incubating her eggs.



3.—Humming Bird feeding newly hatched nestlings.



3.—Young bird nearly full-fledged.



4.—Humming Bird feeding partly fledged nestling.

only to find that one tiny young had hatched. The remaining egg was not even pipped, its dark purplish colour indicating that it was fertile. The youngster resembled an ugly worm rather than a young bird. Not wishing to delay the hatching procedure, I left the gardens without taking any pictures. The following Saturday night, a slow drizzle developed into an all-night downpour which made me fear for the safety of the flimsy nest stuck precariously on the small camellia branch. When on the next day I looked into the nest, I found that the rain had almost soaked it off its foundation. One youngster was clinging to the heavily listing nest; the other I finally discovered on the wet ground. He was numb with cold and showed but faint signs of life. I righted the nest and propped it up as best I could. It had lost its former shape entirely and was nothing more than a wet mass of this and that. I placed the half-dead youngster beside his twin brother, or sister, who was breathing very rapidly. Authorities estimate that the Humming Bird's blood is almost always at fever heat temperature, which is variously estimated at from 111 to 114 degrees of Fahrenheit. Quickly I placed my camera in position and withdrew to my usual hiding-place. Soon Lady H. B. came. Carefully she inspected me and my paraphernalia before attending to the wants of her little family. She made a valiant attempt to feed the young bird that had fallen to the ground, gently poking him with her long bill—quite rightly she thought him in dire need of nourishment. But he only moved sluggishly in response to the motherly caress, the parent thereupon proceeding to feed the other youngster. Carefully she inserted her beak into his to disgorge nectar for a few moments; then she withdrew it just as carefully. Naturally, I wanted a picture of the feeding operation. At first she disappointed me a number of times by turning her back on the camera and me as if to say, "This is strictly a private, a family affair, if you please!" After an hour's waiting—she usually fed the young four times an hour—she condescended to pose in full side view and was disturbed neither by the string as I pulled it nor by the click of the shutter. But before I go further, it is necessary to record an interesting fact. Approximately five minutes after I had returned the half-dead young Humming Bird to the nest, he was breathing as rapidly as his mate. What marvellous powers of recuperation in such a tiny

body! I wondered how long that little fellow had lain on the cold wet ground during that long, rainy night.

When I arrived the Sunday following, the sun shone bright in the charming camellia garden, which, though filled with hundreds of perfectly formed blossoms, yet bore only the smell of the wet earth, for camellias have no fragrance. Never have I seen insect or Humming Bird visit a camellia blossom. An overhead sprinkling system operates once or twice a day to provide necessary moisture for the growing plants, but dangerous moisture for the little nest. When Mrs. H. B. selected her nesting site, she did not in all probability take into consideration the daily drenchings her roofless home would have to endure. At any rate, I found the nest tilted again and occupied by only one youngster, who was quite well feathered—his back being a bright green. Of the other fledgeling I could find no trace whatever. The survivor had spread himself out in the roomy nest, as may be seen in one of the accompanying photographs. When I touched his now quite long beak with a twig, he obligingly opened it wide so that I was able to get the wide-open space into the picture. When I tickled him a second time, he withdrew into the recesses of the nest and turned a frightened eye on me.

Scrutiny of the first dozen exposures showed that most of them had very little contrast—the nest among the dark greenery was hardly visible. For this reason I used a piece of white cardboard in later pictures to brighten the background. Mother Humming Bird did not like this change in the surroundings of her home at all. For several minutes she watched me silently. The camera was set at $1/25$ second with a 6.3 lense opening, the morning being reasonably bright. Suddenly she darted to the nest to feed the youngster, which she did as nonchalantly as if nothing had disturbed her, enabling me to get a good close-up. While the light background shows her as well as the youngster to much better advantage, it tends to diminish the naturalness of the scene.

All in all, this amateur bird photographer drove 120 miles, spent four half days and considerable money and effort to secure the pictures that accompany this article—which are the best from several dozen. Doubtless a more experienced bird photographer could have done much better. But who is to say that he would have

derived more genuine pleasure from the task—that the intimate glimpses afforded the present writer into the family life of the Humming Bird, and the experience of photographing this life, under more or less trying conditions, have not already repaid him many times for all the time and trouble.

A TAME TROUPIAL

By MRS. GODDARD

Last Christmas I received a most delightful present from Capt. Waud, in the shape of a most beautiful Troupial. The bird was rather shy at first, although I very soon persuaded it to take mealworms, and flies, etc., from my hand. After I had had it for about a month I let it fly about the room for an hour or two every day, when I would be writing or painting. I very seldom go about without five or six dogs of all sorts at my heels, including the dignified "Pedro", and they always sit in any room with me that I may be using. Well, the first day that I allowed "Jacko" out of his cage, he was satisfied to sit on the top of it and survey his surroundings, including the dogs. It was most amusing to watch him, with his head first on one side and then on the other, taking stock of us all so to speak. In a very few days he alighted on the table at which I was working and proceeded to peck away at my paint book, which was not conducive to good work on my part. This form of exercise went on until about April; when one day early in the morning, when I was cleaning the cage, master Jacko slipped out, and before I could turn round had disappeared through the open door into the garden! One can imagine my dismay at (as I thought) losing my lovely gold and black devil (he really is nothing less), but so lovable and full of character. I completely lost sight of him and could not hear his cheerful whistle, although for hours we hunted the gardens. They went on till about 7.30 p.m., I had given up all hope, and was sitting in the garden, when to my joy Jacko suddenly appeared on the very top of the roof?! I fetched

his cage into which I dropped a mealworm, and in an instant he swooped down on to the top first and then into his cage ! He seemed hungry, but not as hungry as one would have imagined, after nearly twelve hours liberty. After that all through the summer Jacko has had his liberty and flies about the grounds all day, coming back in the way or whenever the fancy takes him. He will fly in at a window or door straight to where he knows his cage is, and I find him inside, with the door still open ! He is, I need hardly say, full winged, and looks *too* lovely flying about : he is very cruel to the Sparrows who have a holy dread of his sharp beak ! I always like to know he is safe before going out for any length of time. If he is not in, I only have to stand on the lawn with the meal tin in my hand and call, and he comes flying straight to me and alights on my shoulder and so to bed !

PARRAKEET BREEDING RESULTS AT FOXWARREN PARK IN 1935

By ALFRED EZRA

The late frosts in May were disastrous to early breeding Parrakeets, and I was most unfortunate in losing some very good young ones in the nest, when the parents suddenly gave up feeding them. Among these were two beautiful blue Alexandrines. I have tried not giving the birds their nest boxes till late in the year, but I found they lay just the same from their perches. I now give a few notes and results.

ALEXANDRINE PARRAKEETS (*P. nipalensis*).—The old blue male is mated to a blue bred female, which laid three eggs by the 23rd March. Two young were hatched by the 15th April and were reared. One blue and the other green, and the third egg was infertile.

ALEXANDRINE.—Lutino hen mated to a lutino bred male, laid three eggs by the 31st January. Two young were hatched by the 23rd February. The third egg contained a partly formed chick. The two young ones reared are both lutinos. This is the first time I have bred a lutino Alexandrine.

Another pair of blue-bred Alexandrines laid three eggs by the 20th March. Three young hatched by the 14th April. Two of these were a lovely blue, and the third a green. Suddenly the parents gave up feeding the young during the cold spell we had in May. Tried hand rearing them, but I am afraid they were too far gone and I lost them all. One died on the 18th May, one on the 2nd June, and the third on the 9th June.

RING-NECKED PARRAKEETS (*P. krameri*).—Lutino bred male and a lutino female laid four eggs by the 15th March. Only one young was reared, the rest of the eggs being infertile. The young one is a green and left the nest on the 1st June.

A green male and a lutino female Ring-necks laid three eggs by the 31st March. All three were hatched and the young reared, leaving the nest on 19th June. All three green.

Another pair of Ring-necks. Lutino bred male and a lutino female laid two eggs by the 18th May. Both hatched and were successfully reared, leaving the nest on 4th August. One young one is green, and the second is lime green.

DERBYAN PARRAKEETS (*P. derbyana*).—Four eggs were laid by 4th April. All infertile. By the 14th May three more eggs were laid. All hatched out and fully reared, leaving the nest on 28th July.

CRIMSON-WINGED PARRAKEET (*Aprosmietus erythropterus*).—Four eggs laid by the 19th May. Two young hatched out and reared. The other two eggs were broken in the nest. Two fine healthy young left the nest on 14th July.

PRINCESS OF WALES'S PARRAKEETS (*Polytelis alexandræ*).—Five eggs laid by the 18th April. Three young were hatched and the other two eggs were infertile. Two left nest 19th June and the third one was found dead four days later. This is the first time these birds have had only one nest. As a rule they lay and rear two lots every year.

SUMMARY OF BREEDING RESULTS IN
SOUTH AUSTRALIA

By H. S. SEWELL

Having read with pleasure some very interesting breeding summaries in this Magazine, by two or three enthusiastic English fanciers on Foreign Finches and Waxbills, I am induced to record some of my successes for the breeding season ending 30th June last.

I first opened up my account by breeding the common African Fire Finch (*Lagonostica Senegala*); although quite common, I know many birds easier to breed. These tiny Finches had the nasty habit (at least the cock bird had) of gathering up his offspring one by one, usually when a few days old, and placing them at the far end of the aviary in a heap, where if not seen in time, the ants would quickly kill them. I believe this procedure is adopted by most Finches and Waxbills from time to time; incorrect feeding or interference with their nests is, no doubt, usually the trouble. However, I finally reared two birds which turned out to be hens; these are now about 15 months old.

The next species I concentrated on was the Scaly Crowned Weaver (*Sporopipes squamifrons*), habitat Africa, sometimes called Moustache Finch. To-day this bird is more of a rarity, as are most of the South African Finches. The markings on the head are black and grey, resembling scales. It also has a black throat marking, not unlike a drooping moustache, hence this bird's two names. I do not know if this bird has been bred in England; I should imagine so, as I have found them most prolific. In each case they nested in logs, their eggs are pale green, heavily speckled with brown. The most remarkable nest I had from this species was of six eggs and six youngsters raised. Altogether I reared fourteen young and eventually disposed of the entire family as I wanted room for new species. They have very little to recommend them as to colour, although uncommonly marked. They are very active birds, extremely noisy—incidentally quarrelsome.

The Giant Magpie Mannikin (*Amauresthes fringilloides*), habitat

Africa, is another variety which has done well for me this year, having bred eight young to date and the parents still nesting. These also have very little to recommend them as to colour and of course no song. Their courting dance is most peculiar; with his elongated neck, the cock bird vibrates his beak in such a manner which puts me in mind of a snake darting his tongue (readers many think my imagination a trifle vivid). A *Fringilloides* lay four white eggs. The oldest of my young birds is nearly twelve months. I consider them reasonably prolific and extremely hardy.

The White-headed Mannikin (*Munia maja*). This common, but attractive little bird is so well known that description is unnecessary. Incidentally I consider this species one of the hardest to breed; considering the thousands that are sold, very few indeed are bred. I was fortunate in inducing a pair I had to breed, after having them eighteen months or so. I believe the greatest difficulty in breeding *Munia maja* is on account of their extreme timidity; I only succeeded in raising one young.

The Painted Finch (*Emblema Picta*) I had wonderful results until the late summer, having bred thirty birds of this extremely rare species. The majority having moulted out into full colour, when some of the younger ones started dying. At first I thought it was due to moulting, but unfortunately awakened to the true facts too late, when full coloured birds started dying at an alarming rate. After isolating the birds and doing everything possible in the way of tonics and keeping the birds in a hospital cage at 80 degrees (incidentally not saving a single sick one) I finished up by losing approximately twenty birds. I understand the disease was enteritis; however, these things are sent to try us, and I hope to gain by that experience this year. I have one marvellous pair that have been breeding continuously since last September, excepting for about two or three weeks, when they went into a short moult. It will be twelve months in a week or two since they started. This is no doubt an outstanding performance. (For breeding description of this species see AVICULTURAL MAGAZINE, January issue.)

Dufresne's Waxbill (*Coccygia Dufresnii*). I succeeded in raising four youngsters of this beautiful little bird some months back and by

the look of things I do not think it will be long before they will be building again.

I was fortunate in securing our South Australian Society's breeder's medal for all the above species bred this year, so on the whole I am very satisfied with the season's results, and only hope the coming one will be as good.

I have tried time and again with the Melba Finch (*Pytelia melba*) but in vain. One pair have had seven nests, and in the majority of cases the young die in the shell. I have always encouraged them to build under cover; this may have been the trouble, possibly not obtaining enough moisture, as on one occasion in a different aviary they nested outside in a bush and raised one young to a fortnight old, but unfortunately threw it out, so I have now turned this pair out into a garden aviary, where they have nested again, so hope for better results this time.

I have a few nice specimens of the beautiful Fire Tail Finch (*Zoenaginus bellus*) which I have had for some months. These birds usually start breeding from September on. I recently received a few nice birds including Peters Spotted Finches, Black Throated Cardinals, Red faced Waxbills (*Pytelia afra*), Pileated, Nonpareil and Indigo Buntings, etc., so will have some new species to concentrate on this coming season.

The Ornamental Pheasant Society is very proud of the fact that we have been allocated a space in the AVICULTURAL MAGAZINE for every publication. We are grateful to the Society for this space and we feel confident that it will prove of mutual benefit. We hope to keep your members posted as to our activities, and for such activities we hope to receive the support of your members. Furthermore, we hope to be the means of introducing this delightful hobby to many of your members who, keen fanciers though they may be of many other foreign birds, have not yet taken up the absorbing hobby of Pheasant culture.

It is a strange fact that in such countries as France, Italy, Germany, and America the Pheasant fancy has long held sway, yet here in Great

Britain it is but in its infancy. The cult is most certainly on the increase but the O.P.S. are anxious to obtain many new recruits. It is probable that in England there are more working-class Pheasant fanciers than in any other country of the world, and the more leisured classes have not yet appreciated the great beauty of these wonderful birds. It is true to say that no birds in the world breed better in captivity, and not only will they breed well, but all the chicks are possible to rear, some of course being easier than others. And here is a point that should interest all members of the Avicultural Society. Many Pheasants are almost extinct in their native homes, and unless we aviculturists make a determined effort to breed some of these in the next few years then they will be lost for all times. Surely this must appeal to some of your members. What a chance it is for us Britishers to show the world what we can do to pass on to future generations some of these beautiful Pheasants that would otherwise be known to them only as stuffed specimens—poor consolation indeed.

MISS GRANT-IVES,
Hon. Sec. and Treas., O.P.S.

REVIEW

NATURE IN THE WILD. Illustrated souvenir of Nature Photography Exhibition. Country Life, Ltd., 20 Tavistock Street, London, W.C. 2. New York: Charles Scribner's Sons. 5s. net.

These marvellous photographs of wild life from all parts of the world are a revelation to the ordinary person of the astonishing strides made in nature photography within the last few years. It is difficult which to admire most, the perfection of the plates or the patience and intrepidity of the photographers who in many cases risked their lives to obtain them.

How many of us would stay to photograph a charging rhinoceros, or an African Bull Elephant, even though a comrade were covering him with a rifle? or wait long enough to secure pictures of wild shy birds feeding their young and brooding their eggs?

How many wasted plates before the desired photograph was obtained? All honour to those men who dared, waited, and succeeded.

Where all are so good it is difficult to single out any for special mention, but the flash-light picture of the deer leaping in the dark with its perfect reflection, cannot be passed over, nor among the birds the Lyre birds' display and the Bittern in the reeds.

Apart from their beauty, these pictures have great educational value, and should inspire the rising generation to sally forth into jungle and mountain with a camera instead of a gun, and to bring back trophies which have not entailed the death of their subject. It would be hard to find a better present for a nature-loving child.

Moreover, the melancholy fact forces itself on our notice that in the not far distant future, only photographs will remain to show the many birds and animals which are doomed to disappear off the earth before the ever-advancing and destructive "March of civilization". The book is astoundingly cheap at the price charged for it. Country Life, Ltd., are as much to be congratulated on its publication as on the wonderful collection of nature photographs, now on view in the British Museum (Natural History), Kensington, which their enterprise has assembled from all over the world.

E. F. C.

CORRESPONDENCE, NOTES, ETC.

THE FUTURE OF AVICULTURE.

SIR,—I feel compelled to reply to some of the critics who seem to imagine that my article was meant as a wholesale attack on all bird-dealers. This is, of course, ridiculous, as everyone must know who read the article carefully. What I did say, and I repeat, was that the importation of birds in large quantities in an overcrowded state and without proper attention was the cause of many countries prohibiting further export, except perhaps to zoos. I happen to know that, in the case of South Africa and Tanganyika, an English dealer was responsible for this, but this is no reflection on dealers in general.

In the course of years of travel it is only natural that I should have seen more "behind the scenes" than people whose only knowledge of bird-importation has been gained by occasional visits to bird-shops.

This question, no doubt, has two sides to it and I hoped that readers would make suggestions without being too personal, in an endeavour to help the future of aviculture. Now that more and more countries overseas are protecting their birds, it is going to be very difficult for our members to obtain their favourite foreigners unless the Society can enjoy some of the privileges granted to zoos. However, I fear that people who claim that everything in the bird business is all right and that there never has been anything wrong with it, will be the cause of the eventual downfall of aviculture in England.

C. S. WEBB.

INDEX TO SUBJECTS

- Abeille's Grosbeak, 88.
 Abyssinian Blue-winged Goose, 282.
 ,, Cliff-chat, 33.
 ,, Splendid Sunbird, 207.
 Adelaide Parrakeet, 229.
Aena capensis, 261.
Aithya seheræ seheræ, 58.
 African Firefinches, 264, 332.
 ,, Grey-headed Shelduck, 125.
 ,, Wattled Plover, 107.
Agelæus frontalis, 224.
Agyrtria leucogaster, 144.
Aidemosyne modesta, 315.
 Aims of the Society, 263.
 A 1, The History of, 216.
 Alario Finch, 56.
 Alexandrine Parrakeets, 60, 113, 330.
 Algerian Greenfinch, 174.
 Amateur Bird Photographer meets
 Humming Bird Family, 325.
Amauresthes fringilloides, 332.
Amazona aestiva, 277.
 ,, *xanthops*, 216.
 Amazon Parrot, 216.
 American Blue-winged Teal, 85, 285.
 ,, Egrets, 116.
 ,, Nonpareil, 254.
 ,, Pochard, 86, 286.
 ,, Wigeon, 84, 284.
 Amethyst Starlings, 148.
 ,, ,, Breeding of the, 295.
 Amethyst-rumped Sunbird, 246.
 Amherst Pheasant, 52, 273.
Anatidae, 78.
 ,, *brachyrhynchus*, 117.
 Andaman Teal, 284.
 Andean Geese, 25, 282.
 Annamese Pheasant, 271.
Anthracothonax violicauda, 146.
Anthreptes collaris elachior, 143, 267.
 ,, ,, *hypodila*, 159.
 ,, ,, *zambesiana*, 179.
 ,, *tephrolema tephrolema*, 159.
 Ant-Thrush, 145.
 ,, Short-tailed, 88.
Aprosmictus erythropterus, 331.
Ara chloroptera, 87, 265.
 ,, *macao*, 265.
 Arrival of Swallows, 161.
Arundinicola leucocephala, 141.
Asarcornis scutulata, 79, 281.
 Ashy-headed Goose, 25, 282.
 Audubon's Shearwater, 223.
 Aurora Finches, 246, 303.
 Australian Crane, 24.
 ,, Crested Doves, 261.
 ,, Parrakeets, 207, 251.
 ,, Sheldrake, 81.
 ,, Teal, 84, 285.
 ,, Wild Duck, 82, 284.
 Avadavats, 26, 199, 200, 265.
 ,, Green, 77, 113, 246.
 Aviary-bred Birds at Mylor, Cornwall,
 199.
 Avicultural Society—
 Officers for 1935, 1.
 ,, ,, 1936, 310.
 List of Members, 3.
 Rules, 23.
 The Society's Medal, 26.
 Aviculture, Humane, 290.
 ,, The Future of, 336.
 Bahama Duck, 85, 107, 283, 285.
 Baikal Teal, 84, 285.
Balearica regulorum, 59.
Bambusicolo fytchii, 105.
 Banana Quit, 141.
 Banksian Cockatoos, 88, 227.
Banksians, 322.
 Barbet, Blue-cheeked, 212.
 ,, Tinker, 158.
 Bare-eyed Cockatoo, 322.
 Bar-headed Goose, 25, 80, 107, 281.
 Barnard's Parrakeet, 75.
 Barraband Parrakeet, 72, 228, 302.
 "Barred" Ant Shrikes, 147.
 Bauer's Parrakeet, 302.
 Bean Goose, 80, 281.
 Bel's Pheasant, 52, 271.
 Bengalese Finch, 26, 200, 303.
 Berlioz's Pheasant, 271.
 Bermuda Ground Dove, 221.
 ,, White-eyed Vireo, 221.
 Bermudian Notes, 218.
 Bernacle Goose, 80, 281.
 Bewick's Swan, 280.
 Bicheno Finch, 76, 150, 206, 234, 287,
 303.
 Bird, Blue, 220.
 Bird-breeding at Clères, 24.
 Bird Feeding, 27.
 Bird Importation, 311.
 Bird of Paradise, Lesser Superb, 88.
 ,, ,, Wilson's, 88.
 Birds of Paradise, 207, 210.

- Birds at the Vern, 129.
 Birds Bred in Captivity, Records of, 195.
 Birds in Scotland, Mrs. R. G. Ashby's, 205.
 Birds of a Tasmanian Garden, 239.
 Birds of Fiji, Notes on, 90, 126, 164.
 Birds of St. James's Park, 124.
 Bittern, Sun, 107, 303.
 Blackbirds, 64, 114, 195.
 ,, Chinese, 105.
 ,, Crow, 115.
 Black Cockatoo, 322.
 Black Seed Finches, 303.
 Black Swan, 79, 240, 280.
 Black and Chestnut Finch, 117.
 Black and White Finch, 117.
 Black-backed Kalij Pheasant, 271.
 Black-banded Finch, 46.
 ,, Upland Goose, 80, 282.
 ,, -billed Tree-ducks, 25.
 Black-cheeked Lovebird, 61.
 ,, Waxbill, 180, 206.
 Black-chinned Yuhinas, 235.
 ,, -crested Kaleege Pheasant, 52, 271.
 ,, -crowned Night Heron, 116.
 ,, -headed Gull, 126.
 ,, ,, Ibis, 319.
 ,, ,, Lined Finch, 9.
 ,, ,, Sibia, 154, 233.
 ,, ,, Sugar-birds, 212.
 ,, -necked Pheasant, 52.
 ,, ,, Swan, 280.
 ,, -shouldered Peafowl, 25.
 ,, -throated Cardinals, 334.
 ,, ,, Mango, 146.
 Blood Pheasants, 269.
 Bluebirds, 114, 115, 220.
 Blue Crossoptilon Pheasant, 25.
 ,, Eared-Pheasant, 270
 ,, Heron, 116.
 ,, Robin, 219.
 ,, Snow Goose, 107, 282.
 ,, Sugar-bird, 207, 212.
 ,, Wrens, 239.
 Blue and Black Tanager, 212.
 ,, and Yellow Macaw, 207.
 Blue-banded Grass Parrakeet, 122.
 ,, -cheeked Barbet, 212.
 ,, -chinned Sapphire, 146.
 ,, -crowned Conures, 61, 113.
 ,, -faced Honeyeater, 323.
 ,, -fronted Amazon Parrot, 207, 277.
 ,, -headed Pigeon, 25.
 ,, ,, Waxbills, 24.
 ,, -necked Crowned Crane, successful rearing in captivity, 59.
 Blue-tailed Pitta, 141, 208, 212.
 ,, -winged Geese, 25, 79.
 ,, ,, Parrakeet, 73, 121.
 ,, ,, Siva, 254.
 Bluish Finch, 3.
 Blyth's Tragopan Pheasant, 25, 52, 267.
 Borneo Fireback Pheasant, 52.
 Bourke's Parrakeet, 73, 121.
 Bradley Court, Breeding Results at, 286.
 Bramblings, 256.
Branta canadensis hutchinsii, 117.
 Brazilian Emerald, 146.
 ,, Fairy, 146.
 ,, Hangnest, 212.
 ,, Teal, 25, 84, 285.
 ,, Water Tyrants, 142.
 Breeding Activities of Foreign Doves, 260.
 Breeding of the Amethyst Starling, 295.
 ,, Ceylon Bulbul, 238.
 ,, Courier Water-Tyrant, 171.
 ,, Dufresne's Waxbill, 182.
 ,, Linnet, 57.
 ,, Painted Finch, 300.
 ,, Painted Finch in Australia, 16.
 ,, Peter's Spotted Firefinch, 198.
 ,, Royal Parrot Finch, 245.
 ,, Whooper Swan, 149.
 ,, Results at Balcombe, 55.
 ,, ,, Bradley Court, 286.
 ,, ,, Keston Foreign Bird Farm during 1934, 72.
 ,, ,, Foxwarren Park, 1934, 105, 330.
 ,, ,, from The Nash, 301.
 ,, ,, in South Australia, 332.
 British Bird Breeders' Association, 195.
 Bronze-tail Pheasant, 25, 273.
 ,, -winged Pigeon, 25, 105, 151.
 Brown Eared-Pheasant, 270.
 Brown Parrakeet, 302, 321.
 Brown-headed Marsh Troupial, 224.
 Brush Turkeys, 25.
 Budgerigar, Cobalt, 208.
 Budgerigars, 28, 55, 77, 108, 206, 207.
 ,, Details for the Construction of an Outdoor Flight for Budgerigars, 241.
 Bulbul, Ceylon, 238.
 ,, Chinese, 212.
 ,, Green Hardwicke's, 212.
 ,, Persian, 201.
 ,, Red-vent, 93.
 ,, White-cheeked, 106, 235.
 Bullfinch, 63, 113, 195.
 Bulwer's Pheasant, 52.
 Bunting, Cirl, 63.

- Bunting, Hair-crested, 107.
 „ Indian, 201.
 „ Indian Crested, 153.
 „ Indigo, 334.
 „ Nonpareil 206, 334.
 „ Pileated, 334.
 „ Rainbow, 28 160, 201, 253.
 „ Versicolor, 28, 253.
 Buntings, 28.
Burhinus vermiculatus, 105.
 Burmese, or Spicifer, Peafowl, 274.
 Bush Shrikes, 158.
 Cabot's Tragopan, 269.
Cacatua sanguinea, 322.
 Caique, White-breasted, 62, 114.
 California Mourning Dove, 262.
 Californian Quails, 107, 302.
Calliptilus solitarius, 131.
Cailiste boliviana, 88.
 „ *veilloti*, 88.
 Canada Goose, 80, 282.
 Canary, 28, 256.
 „ Cape, 55.
 Canvasback Duck, 86, 286.
 Cape Canary, 55.
 „ (or Harlequin) Dove, 261.
 Cardinal, Black-throated, 334.
 „ Green, 155, 206, 224, 225, 302.
 „ Grey, 56, 225.
 „ Pope, 155.
 „ Red, 115.
 „ Red-crested, 155.
 „ Virginian, 155, 220, 251.
 Cardinal Honey-eater, 143.
 Carolina Duck, 79, 107, 281, 287, 302.
 „ „ First Importation of, 162.
Carpodacus erythrinus, 176.
 „ *mexicanus*, 176.
Casarca ferruginea, 118.
 „ *variegata*, 118.
 Catbird, North American, 221.
 Caterpillar-eater, 169.
Catreus wallichi, 270.
 Cedarbirds, 115.
 Cedar Waxwing, 115.
Ceratogymna atrata, 158.
 Cereopsis Geese, 25, 281.
 Ceylon Bulbul, Breeding the, 238.
 Chaffinch, 64, 195, 256.
 Chaffinches and Bramblings in Cap-
 tivity, 256.
Chalcomitra amethystina kirki, 179.
 „ *angolensis angolensis*, 159.
 „ *senegalensis inestimata*, 179.
 „ „ *lamperti*, 141.
Chalcophaps indica, 260.
Chalcophyes indica, 106.
Chalcurus, 273.
 „ *inopinatus*, 274.
 Cheer Pheasant, 52, 270.
 Cherry Finch, 207, 246, 303.
 Chestnut-breasted Finches, 107, 206.
 „ „ Rock Thrush, 106.
 „ -throated Finch, 117.
 Chile Crested Duck, 284.
 Chilian Pintail Duck, 85, 284, 285.
 „ Teal, 84, 285.
 Chiloe Wigeon, 84, 284.
 Chinese Blackbirds, 105.
 „ Bulbul, 212.
 „ Goose, 80, 282.
 „ Greenfinch, 174.
 „ Painted Quail, 106.
 „ Ringneck Pheasant, 273.
 „ Zosterops, 207.
 Chiquis Peacock Pheasant, 52, 274.
Chlorestes notatus, 146.
Chloris chloris, 173
 „ „ *aurantiiventris*, 174
 „ „ *sinica*, 174
 „ „ *kawarhiba*, 174
Chlorostilbon prasinus, 146.
Chrysæna luteovirnes, 166.
 „ *victor*, 165.
Chrysolampis mosquitus, 146.
 Cinnamon Finch, 117.
 „ Teal, 25, 85, 285.
Cinnamopterus tenuirostris, 105.
Cinnyris mediocris usambaricus, 58, 179.
 „ *minullus minullus*, 159.
 „ *superbus superbus*, 159.
 Cirl Bunting, 63.
 Clères, Bird-breeding at, 24.
 Cliff-Chat, Abyssinian, 33.
 Cobalt Budgerigar, 208.
Coccygus dufrenoyi, 182, 333.
 „ *melanotis kilimensis*, 24.
 Cockatiels, 75, 206, 215.
 Cockatoo, Banksian, 88, 227.
 „ Bare-eyed, 322.
 „ Black, 322.
 „ Leadbeater's, 227.
 „ Lemon-crested, 320, 322.
 „ Parrot, 239.
 „ White Roseate, 227.
 Cocks-of-the-Rock, 88.
 Cocos Island Tropic Bird, 224.
 Collared Finch, 44.
 Collector on Melville Island, 316.
 Colombian Plumbeous Finch, 8.
Columbigallina passerina bermudiana,
 221.
 Common African Firefinches, 200.
 „ Duck, 79.
 „ Firefinches, 206.

- Common Greenfinch, 173.
 „ Mynah, 93.
 „ Peafowl, 274.
 „ Scaup, 86.
 „ Sheldrake, 25.
 „ Swan, 79, 280.
 „ Teal, 84, 285.
 Conures, Blue Crowned, 61, 113.
 „ Queen of Bavaria, 229.
Conurus hæmorrhous, 61.
 Cooper's Tanager, 265.
 Copper Pheasant, 25.
 Cordon Bleus, 26, 56, 200, 206.
 Corean Pheasant, 273.
 Cormorants, 125.
 Corncrake, 212, 219.
 Coscoroba Swan, 280.
Cossypha heuglini intermedia, 143.
 Cow-birds, 114.
 Crane, Australian, 24.
 „ Blue-necked Crowned, 159.
 „ Crown Crested, 286.
 „ Crowned Stanley's, 25.
 „ Demoiselle, 24, 286.
 „ Eastern Sarus, 24.
 „ Manchurian, 25.
 „ Sarus, 108, 302.
 „ Stanley, 108.
 „ White Asiatic, 25, 303.
 „ White-necked, 25.
 Cranes, 24.
 Crested Bengalese, 206.
 „ Fireback Pheasant, 272.
 „ Tanager, 21.
 Crestless Fireback Pheasant, 52, 272.
 Crimson Finch, 207.
 Crimson-wing Parrakeet, 75, 227, 321, 331.
 „ wings, Red-eyed, 23.
Crossoptilon nirutum, 270.
 „ *crossoptilon*, 270.
 „ „ *hermani*, 270.
 „ *manchuricum*, 270.
 Crow-blackbirds, 115.
 Crown Crested Cranes, 286.
 „ Pigeons, 303.
 Crowned Lapwing, 106.
 „ Stanley's Crane, 25.
 „ Starling, 105.
Cryptospiza reichenowi sanguinolenta, 23.
 Crystal Palace Show, 88.
 Cuban Finch, 77, 160, 246.
 Curucoe's, Nocturnal, 303.
 Cut-throats, 26.
Cyanomitra verticalis cyanocephala, 159.
 Danger in Dusty Sand, 31, 149.
 Dark Golden Pheasant, 19, 57.
 Darwin's Rheas, 24.
 Demoiselle Cranes, 24, 286.
 Derbyan Parrakeet, 228, 331.
 Details for the Construction of an Outdoor Flight for Budgerigars, 241.
 „ Diablotin, 222.
 Diamond Doves, 25, 28, 75, 160, 200, 261, 303.
 „ Sparrows, 24, 150, 303.
Diardigallus diardi, 272.
 Diuca Finch, 303.
 Diver, Red-throated, 126.
 Domestic Duck, 281.
 „ Goose, 80, 281.
 Donaldson's Touracou, 212.
 Dove, Australian Crested, 261.
 „ Bermuda Ground, 221.
 „ California Mourning, 262.
 „ Cape, 261.
 „ Diamond, 25, 28, 75, 160, 200, 261, 303.
 „ Flame, 93, 165.
 „ Galapagos, 25, 261.
 „ Golden, 93, 166.
 „ Indian Green-winged, 106, 260.
 „ Jobi's, 25.
 „ Long-tailed, 25.
 „ Maiden, 77.
 „ Martinican (or Aurita), 262.
 „ Mexican Ground, 261.
 „ Mourning, 25.
 „ Peaceful, 303.
 „ Perouse's Fruit, 164.
 „ Ringneck, 262.
 „ Senegal, 25.
 „ Talpacotis, 25.
 „ Tambourine, 77, 106.
 Doves, Foreign, 260.
 Drongo, Racket-tailed, 207, 212, 235.
 Drongos, 210.
 Duck, Australian Wild, 82, 284.
 „ Bahama, 85, 107, 283, 285.
 „ Canvasback, 86, 286.
 „ Carolina, 79, 107, 162, 281, 287, 302.
 „ Chile Crested, 284.
 „ Chilian Pintail, 85, 284, 285.
 „ Comb, 79.
 „ Domestic, 281.
 „ Dusky, 82, 283.
 „ Eider, 286.
 „ Falcated, 83, 287, 302.
 „ Fulvous Tree, 107.
 „ Gadwall, 125.
 „ Grey, 65.
 „ Golden-eye, 126.

- Duck, Knobbill, 281.
 „ Luzon, 83.
 „ Mandarin, 79, 107, 281, 287.
 „ Marbled, 85.
 „ Mellers, 107, 183, 283.
 „ Muscovy, 79, 281.
 „ Pintail, 284.
 „ Red-billed, 285.
 „ Rosybill, 85, 285.
 „ Scaup, 126.
 „ Smew, 126.
 „ South African Black, 284.
 „ Spotbill, 284.
 „ Tufted, 86, 125, 286.
 „ Whistling, 125.
 „ White-winged Wood, 79.
 „ Wild, 283.
 „ Yellow-billed, 83, 284.
 Duck-breeding Records, 280.
 Duck Hybrids, 78, 117.
 Dufresne's Waxbill, 24, 182, 207, 333.
Dumetella carolinensis, 221.
 Dusky Duck, 82, 283.
 „ Robin, 239.

 Eagle, Wedge-tailed, 320.
 Eagles, 320.
 Eared-Pheasant, Blue, 270.
 „ Brown, 270.
 „ White, 270.
 Easily Constructed Outdoor Aviary, 108.
 East African Manikins, 235.
 Eastern Sarus Crane, 24.
 Eclectus Parrot, 88.
 Edward's Pheasant, 25, 52, 272.
 Egrets, American, 116.
 Egyptian Goose, 81, 281.
 Eider Duck, 286.
 Elegant Parrakeet, 73, 121.
 Elliot Pheasant, 52, 237, 273.
Emblema picta, 16, 57, 253, 300, 333.
 Emerald, Brazilian, 146.
 „ White-bellied, 140.
 Emperor Goose, 25, 80, 282.
 Emu Wren, 239.
 Emus, 24.
 English Sparrow, 223.
Entomyzon cyanotis, 323.
Erythrura cyanovirens regia, 21.
 „ *pealei*, 135, 138.
 „ *psittacea*, 22.
 „ *trichroa cyaneifrons*, 306.
Estrilda atricapilla, 159.
 „ *nonnula*, 159.
Euchichla cyanura, 141.
 Eulers Finch, 5.
Eupetomena macroura, 139.

 European Goldfinch, 223.
 Evening Grosbeak, 88.
 Evils of Mass Importation, and Some Suggested Remedies, 248.
Excalfactoria chinensis, 106.
 Eye Disease in Parrakeets, 118.

 Fairy, Brazilian, 146.
 Falcated Duck, 83, 287, 302.
 „ Teal, 284.
 Fantail-Flycatcher, Fijian, 170.
 Feeding, Bird, 27.
 „ Some Notes on, 60.
 „ the Grey Parrot, 195.
 Fertility of the Hooded Siskin and Canary Hybrid, 229.
 Festive Tanager, 208, 212.
 Fijian Fantail-Flycatcher, 170.
 „ Kingfisher, 169.
 „ Parrakeets, 92.
 „ Rail, 168.
 „ Ruffed Lory, 131.
 „ Scarlet Sunbird, 169.
 „ White-throated Pigeon, 167.
 Fiji, Notes on Birds of, 90, 126, 164.
 Finch, Alario, 56.
 „ Aurora, 246, 303.
 „ Bengalese, 26, 200, 303.
 „ Bicheno, 76, 150, 206, 234, 287, 303.
 „ Black-banded, 46.
 „ Black-headed Lined, 9.
 „ Black and Chestnut, 117.
 „ Black and White, 117.
 „ Black Seed, 303.
 „ Bluish, 3.
 „ Cherry, 207, 246, 303.
 „ Chestnut-breasted, 107, 206.
 „ „ -throated, 117.
 „ Cinnamon, 117.
 „ Collared, 45.
 „ Colombian Plumbeous, 8.
 „ Crested Bengalese, 206.
 „ Crimson, 207.
 „ Cuban, 77, 160, 246.
 „ Diuca, 303.
 „ Eulers, 5.
 „ Fire-red, 69.
 „ Firetail, 18, 334.
 „ Gouldian, 24, 26, 28, 76, 77, 150, 200, 287, 302.
 „ Grey, 4.
 „ Guttural, 44.
 „ Half White, 6.
 „ Heck's, 205.
 „ Lavender, 206, 246.
 „ „ -backed, 70.
 „ Lineated, 10.

- Finch, Lined, 8.
 „ Long-tailed Grass, 24, 76.
 „ Marsh, 49.
 „ Melba, 205, 334.
 „ Mexican Rose, 303.
 „ Moreleti, 47.
 „ Natterers, 71.
 „ Nutmeg, 200.
 „ Olive, 206, 303.
 „ Painted, 16, 57, 253, 300, 333.
 „ Parrot, 77, 246, 249.
 „ Parson, 304.
 „ Peale's Parrot, 135.
 „ Pectoral, 200.
 „ Pileated, 150.
 „ Plumbeous, 7.
 „ Plumhead, 315.
 „ Red-crested, 155.
 „ Reddish, 50.
 „ Red-eared Firetail, 18.
 „ Red-headed Parrot, 22, 76, 303.
 „ Royal Parrot, 21, 245.
 „ Ruficauda, 76, 150, 205, 234, 287.
 „ Rufous-bellied, 117.
 „ „ collared, 48, 116.
 „ Saffron, 201.
 „ St. Helena, 199.
 „ Screaming, 4.
 „ Shaft-tail, 261.
 „ Sharp-tailed, 206.
 „ Spectacled, 10, 116.
 „ Tanganyika Melba, 24, 180.
 „ Tricoloured Parrot, 303.
 „ Ultramarine, 200.
 „ Whiteley's, 7.
 „ White-throated, 2, 77, 206.
 „ Zebra, 27, 56, 75, 160, 200.
 Finches, 75.
 „ Grass, 28.
 „ Negro, 159.
 „ Purple, 115.
 „ Seed-eating, 318.
 Fireback Pheasants, 272.
 Firefinch, African, 264, 332.
 „ Common, 206.
 „ Common African, 200.
 „ Jamieson's, 180.
 „ Kenya, 24.
 „ Peter's Spotted, 161, 180, 198,
 205, 237, 334.
 Fire-finches, 26.
 Fire Red Finch, 69.
 Firetail Finch, 18, 334.
 First Importation of the Carolina
 Duck, 162.
 Fischer's Lovebird, 61, 113.
 Flame Dove, 93, 165.
 „ Robin, 239.
Fluvicola climazura, 171.
 „ „ *climazura*, 171.
 „ *pica*, 171.
 Foreign Doves, Breeding Activities of,
 260.
Formicarius cola, 145.
 Formosan Blue Magpie, 288.
 „ Pheasant, 273.
 Friar Birds, 323.
Fringilla cælebs, 256.
 „ „ *canariensis*, 256.
 „ „ *spodiogenys*, 256.
 „ „ *montifringilla*, 257.
 Fruit Sucker, Golden-fronted, 66, 160,
 207, 255.
 Fulvous Tree-ducks, 25, 107, 283.
 Further Nesting Notes on Bronze-wing
 Pigeons, 151.
 Further Successes at Mylor, 237.
 Fytche's Partridge, 105.
 Gaboon Forest Robin, 158.
 Gadwall Duck, 83, 125, 284.
 Galah, 239.
 Galapagos Dove, 25, 261.
Galeopsar salvadori, 105.
Gallicolumba jobiensis, 168.
 „ *kubaryi*, 168.
 „ *stairi*, 167.
Gallus, 272.
 Garganey, 85, 285.
 Geese, Andean, 25, 282.
 „ Ashy-headed, 25.
 „ Bar-headed, 25.
 „ Blue-winged, 25, 79.
 „ Cereopsis, 25, 281.
 „ Emperor, 25.
 „ Grey Lag, 258.
 „ Magellan, 25, 281.
 „ Orinoco, 107.
 „ Ross's Snow, 25.
 Gentlemen Only, 250.
Gennæus, 271.
 „ *annamensis*, 271.
 „ *lewisi*, 271.
 „ *whiteheadi*, 271.
 Genus *sporophila*, 1, 43, 69, 116.
Geocichla citrina, 106.
 Giant Magpie Mannikin, 332.
 Giant Whydah, 148, 200, 225, 254.
 Glossy Starling, 159.
Gogoniulus leucolamia leucolamia, 158.
 Goldbreast, 199, 200.
 Golden Dove, 93, 166.
 „ Oriole, 207, 212.
 „ Pheasant, 52, 273.
 Golden-breasted Waxbills, 206, 264.

- Golden-eye Duck, 126, 286.
 „ -fronted Fruitsucker, 66, 160, 207, 255.
 „ -mantle Parrakeet, 72.
 Goldfinch, 64, 175, 195.
 „ European, 223.
 Goosanders, 126.
 Goose, Abyssinian Blue-winged, 282.
 „ Andean, 282.
 „ Ashy-headed, 25, 282.
 „ Bar-headed, 25, 80, 107, 281.
 „ Bean, 80, 281.
 „ Bernacle, 80, 281.
 „ Black-banded Upland, 80, 282.
 „ Blue Snow, 107, 282.
 „ Blue-winged Snow, 79.
 „ Canada, 80, 282.
 „ Cereopsis, 281.
 „ Chinese, 80, 282.
 „ Domestic, 80, 281.
 „ Egyptian, 81, 281.
 „ Emperor, 25, 80, 282.
 „ Greylag, 281.
 „ Hutchins's, 80, 117, 282.
 „ Lesser White-fronted, 80, 281.
 „ Maned, 80, 282.
 „ Orinoco, 79, 107, 282.
 „ Pink-footed, 117, 281.
 „ Red-breasted, 282.
 „ Ruddy-headed, 80, 282.
 „ Sandwich Islands, 80, 282.
 „ Snow, 79.
 „ Spurwing, 281.
 „ Upland, 80, 282.
 „ White-fronted, 80, 281.
 Gouldian Finches, 24, 26, 28, 76, 77, 150, 200, 287, 302.
 Grackle, Rothschild's, 88.
Grallina cyonoleuca, 214.
 „ *picata*, 107.
Grallina, Pied, 107, 214.
Granalina ianthinogaster ianthinogaster, 23.
Granatina granatina, 23.
 Grassfinches, 28, 302.
 „ Heck's, 206.
 „ Long-tailed, 24, 76, 112, 206, 207.
 „ Masked, 112, 206.
 Grass Parrakeets—Some Facts and Fictions, 120.
 Grass Parrot, 239.
 Great Crested Grebe, 126.
 Greater St. Helena Waxbills, 246.
 Grebe, Great Crested, 126.
 Green Avadavats, 77, 113, 246.
 „ Cardinals, 155, 206, 224, 225, 302.
 „ Glossy Starling, 212.
 „ Hardwicke's Bulbul, 212.
 Green Javan Junglefowl, 272.
 „ Woodpecker, 126.
 Green-billed Toucan, 212.
 „ -winged Shining Parrakeet, 88.
 „ Teal, 25.
 Greenfinch, 55, 64, 195, 196, 256.
 „ Algerian, 174.
 „ Chinese, 174.
 „ Common, 173.
 „ in Captivity, 173.
 „ Japanese, 174.
 Grenadier Waxbill, 207.
 „ Weaver, 106.
 Grey, Viscount, North Country Memorial to, 207.
 Grey Cardinal, 56, 225.
 „ Duck, 65.
 „ Finch, 4.
 „ Lag Geese, 258.
 „ Parrot, 229.
 „ „ Feeding the, 195.
 „ Polyplectrons, 25.
 „ Teal, 84, 285.
 „ Waxbills, 206.
 Grey-headed Shelduck, 81, 283.
 Grey-necked Serin, 55.
 Grosbeak, Abeille's, 88.
 „ Evening, 88.
 „ Mexican Blue, 225.
 „ „ Yellow, 255.
 Grosbeaks, 1.
 Ground Tyrants, 145.
 Gull, Black-headed, 126.
 Guttural Finch, 44.
 Hair-crested Bunting, 107.
Halcyon sacra vitiensis, 169.
 Half-masked Weavers, 225.
 Half White Finch, 6.
 Hangnest, Brazilian, 212.
 Hand Rearing of the King and Pennant Parrakeet, 258.
 Hand Rearing of the White-capped Parrot, 11.
Haplornis lessoni, 170.
 Hard-hearted Hannah, 224.
 Hardiness of a Humming Bird, 139.
 Hartlaub's Spotted Waxbill, 22, 88.
 Hastings Tragopan, 269.
 Hawfinch, 206.
 Hawks, 320.
 Heck's Grassfinches, 205, 206.
 Hedge Sparrow, 63.
Heliothrix auribus poucheti, 146.
 Hepatic Tanager, 265.
 Heron, Black-crowned Night, 116.
 „ Blue, 116.
 „ Louisianian, 116.

- Hick's Seed-eater, 43.
Hierophasis, 271.
 Himalayan Monal, 270.
 „ Siskin, 175.
 Honey-eater, Blue-faced, 323.
 „ Cardinal, 143.
 „ Kandavu, 170.
 Hooded Parrakeets, 74, 321.
 „ Pittas, 25, 172.
 „ Siskin and Canary Hybrid,
 Fertility of the, 229.
 „ Tanager, 142.
 Hornbill, 158.
 Horsfield's Kalij Pheasant, 271.
 Hottentot Teal, 107.
 Humane Aviculture, 290.
 Humming-bird, Hardiness of a, 139.
 „ Ruby and Topaz, 144, 146.
 „ Swallow-tailed, 139.
 „ Waterton's Wood-nymph, 88.
 „ White-bellied Emerald, 144.
 Humming Birds, 207, 325.
 Hutchins's Goose, 80, 117, 282.
 Hybrid Carolina, 107.
Hypacanthis spinoides, 175.
Hypargos margaritatus, 197.
 „ *niveiguttatus*, 198.
Hypotaenidia philippinensis assimilis,
 169.
 „ „ *sethsmithi*, 168.
 Ibis, Black-headed, 319.
 Imperial Pheasant, 25, 272.
 Importation, Improper, 291, 311.
 Improper Importation, 291, 311.
 In a Hampstead Garden, 232.
 Indian Crested Bunting and other
 Birds, 153.
 „ Green-winged Dove, 106, 260.
 „ Sprosser, 287.
 Indigo Buntings, 201, 334.
Ispidina picta picta, 158.
Ithaginis, 269.
 Jamieson's Firefinch, 180.
Janthænas vitiensis, 167.
 Japanese Copper Pheasants, 273.
 „ Greenfinch, 174.
 Java Sparrows, 160.
 Jobis Dove, 25.
 Jungle-fowl, 25, 272, 287.
 Junglefowl, Green Javan, 272.
 „ Lafayette's, 272.
 „ Red, 272.
 „ Sonnerat's, 272.
 Kalij Pheasant, 271.
 Kandavu Honey-eater, 170.
 Kenya Firefinch, 24.
 „ Malachite, 88.
 Kernel-eaters, Olive, 142.
 Kingfisher, Fijian, 169.
 Kingfishers, 115, 126, 158.
 „ New-Hebridean, 88.
 King Parrakeet, 228, 258, 302.
 Kirk's Sunbird, 179.
Kittocincla malabarica, 105.
 Knob-bill Duck, 251.
 Koklass Pheasant, 52, 270.
 Kulas, 91.
 Lafayette's Junglefowl, 272.
Lagonosticta rubricata hildebrandti, 24.
 „ *senegala*, 332.
Lalage woodi?, 169.
Lamprocolius purpureiceps, 159.
 Landrail, 126.
Laniarius kuhderi, 158.
 Lapwing, Crowned, 106.
 Larks, Meadow, 114, 115.
 Lavender Finches, 206, 246.
 Lavender-backed Finch, 70.
 "Lavendeiras," 142.
 Layard's Parrakeet, 228.
 „ „ Successful Breeding of the,
 275.
 Leadbeater's Cockatoo, 227.
 Lemon-crested Cockatoos, 320, 322.
Lepidolarynx squamosus, 147.
 Lesser Bifasciated Sunbird, 207.
 „ Niltavas, 145.
 „ Scaup, 86, 286.
 „ St. Helena Waxbills, 180.
 „ Superb Bird of Paradise, 88.
 „ White-fronted Goose, 80, 281.
Leucosarcia picata, 106.
 Lewis's Pheasant, 271.
 L'Huys's Monal, 270.
 Lined Finch, 10.
 „ Kalij Pheasant, 271.
 Lined Finch, 8.
 Linnet, 63, 195.
 „ Breeding the, 57.
Liothrix, 154.
 "Little Widow Tyrants," 148.
 Lives of Some Aviary-bred Birds at
 Mylor, Cornwall, 199.
 Livingstone's Touracou, 208, 212.
Lobiophasis bulweri, 272.
Lobivanellus lateralis, 107.
 London Aviary, Notes from a, 21.
 Long-tailed Doves, 25.
 „ Finch, 160.
 „ Grassfinches, 24, 76, 112, 206, 207.
 „ Pheasants, 273.
Lophophorus, 270.

- Lophortyx californicus*, 107.
 Lorikeet, Swainson's, 75.
 ,, Varied, 321.
 Lory, Fijian Ruffed, 131.
 ,, Red-collared, 320.
 ,, Ruffed, 91.
 ,, Swainson's, 302.
 Louisianian Heron, 116.
 Lovebird, Blackcheeked, 61.
 ,, Fischers, 61, 113.
 ,, Masked, 61, 75, 113.
 ,, Nyasa, 75.
 ,, Peachfaced, 61, 113.
 Lovebirds, 55, 61, 75.
 Luzon Duck, 83.

 Macaws, 224.
 ,, Blue and Yellow, 207.
 ,, Red-and-Yellow, 87, 265.
 Macklots Pittas, 143.
Macropygia swinhoii, 106.
 Madagascar Partridge, 105.
 ,, Weavers, 25.
 ,, White-eyes, 25.
 Magellan Geese, 25, 281.
 Magpie, Formosan Blue, 288.
 ,, Mannikins, 207.
 ,, White-backed, 239.
 Maiden Dove, 77.
 Malabar Parrakeet, 228.
 Malachite, Kenya, 88.
Malaconotus cruentus gabonensis, 158.
 Malay Argus Pheasant, 52.
 ,, Peacock Pheasant, 274.
Malimbus cassini, 159.
 ,, *nitens*, 159.
 ,, *scutatus*, 159.
 Mallard, 65, 81, 125.
 Manuals, 25.
 Manchurian Crane, 25.
 Mandarin Duck, 79, 107, 281, 287.
Mandingoa, 159.
 ,, *nitidula nitidula*, 22.
 ,, ,, *schlegeli*, 159.
 Maned Goose, 80, 282.
 Mango, Black-throated, 146.
 Mannikins, East African, 235.
 ,, Giant Magpie, 332.
 ,, Magpie, 207.
 ,, White-headed, 332.
 Many-colour Parrakeet, 72.
 Marbled Duck, 85.
 ,, Teal, 284.
Margaroperdix madagascariensis, 105.
 Maroon Tanager, 212.
 Marsh Finch, 49.
 Martinican (or Aurita) Doves, 262.

 Masked Grassfinches, 112, 206.
 ,, Lovebird, 61, 75, 113.
 ,, Parrakeet, 92, 94, 150.
 Mass Importation, Evils of, 248.
 Meadow Larks, 114, 115.
 Mealy Rosella Parrakeet, 75, 227, 239.
 Melanistic Mutant Pheasant, 52, 273.
 Melba Finches, 205, 334.
Meliphaga provocator, 170.
 Meller's Duck, 83, 107, 283.
Melophus melanicterus, 153.
 Mesias, Silver-eared, 154.
 Mexican Blue Grosbeak, 225.
 ,, Ground Doves, 261.
 ,, Rosefinch, 176, 303.
 ,, Yellow Grosbeak, 255.
 Mice in Aviaries, 160, 212.
 Mikado Pheasant, 25, 52, 273.
Milopsittacus undulatus, 108.
Miro australis longipes, 89.
 Mombasa Collared Sunbird, 88, 143, 267.
 Monal, Himalayan, 270.
 ,, L'Huys's, 270.
 ,, Sclater's, 270.
 Monal, 270.
 Monaul Pheasant, 52, 302.
 Mongolian Pheasant, 273.
Monticola erythrogastra, 106.
 Moreleti Finch, 47.
 Motmot, 147.
Motmotus motmota?, 147.
 Mourning Dove, 25.
 Mr. Seth-Smith's Contributions to the Magazine, 184.
 Ditto, Testimonial, 236.
 Mr. Webb's Collection from the Cameroons, 158.
 Mrs. R. G. Ashby's Birds in Scotland, 205.
Munia maja, 333.
Muscadivores latrans, 166.
 Muscovy Duck, 79, 281.
 Mutton Bird, 34, 239.
Myiomoira toitoi, 163.
 ,, *macrocephala dieffenbachii*, 163.
 ,, ,, *macrocephala*, 163.
 ,, ,, *marrineri*, 163.
 Mynah, 212.
 ,, Common, 93.
Myzomela cardinalis, 143.
 ,, *jugularis*, 169.

 Napoleon Weaver, 201.
 Natterers Finch, 71.
Nectarinia tacaze jacksoni, 58.
 Negro Finches, 159.

- Nemosia pileata atricapilla*, 142.
 Nesting Notes on Bronze-wing Pigeons, 151.
 New-Hebridean Kingfishers, 88.
 New Hebrides Zosterops, 21.
 New Zealand Birds, Notes on, 34.
 ,, Sheldrake, 81.
 ,, Shelduck, 283.
 ,, Some British Birds in, 62.
 ,, Tomtit, 163.
 ,, Zosterops, 32, 37.
 Ngau Island Parrakeet, 126.
 Nicobar Pigeon, 25.
Nigrita bicolor brunnescens, 159.
 ,, *canicapilla canicapilla*, 159.
 ,, *fusconata fusconata*, 159.
 Niltava, Lesser, 145.
 ,, Rufus-bellied, 147, 252.
Niltava macgregoriae, 145.
 ,, *sundara*, 147.
 Nocturnal Curucos, 303.
 Nonpareil, American, 254.
 ,, Bunting, 206, 334.
 ,, Pintailed, 303.
 North American Catbird, 221.
 ,, Island Robin, 89.
 North Country Memorial to Viscount Grey, 307.
 Notes, Bermudian, 218.
 ,, for 1935, 227.
 Notes from a London Aviary, 21.
 ,, ,, a Somerset Aviary, 303.
 ,, ,, South Devon, 112.
 Notes on Birds at the Vern, 139.
 ,, ,, of Fiji, 90, 126, 164.
 ,, on a Voyage Home from Africa in the Winter, 177.
 ,, on New Zealand Birds, 34.
 ,, on Pheasants, their Status at Liberty and in Captivity, 268.
 ,, on the Birds of St. James's Park, 124.
 Nuns, 26.
 Nutmeg Finch, 200.
 ,, Pigeon, 166.
 Nyasa Lovebird, 75.
 Obituary—
 Major E. J. T. Housden, 149.
 Mr. G. B. Chapman, 118.
 Mr. Samuel McGredy, 30.
 Norah, Lady Dunleath, 294.
 Ocellated Argus Pheasant, 274.
 Olive Finches, 206, 303.
 ,, Kernel-eaters, 142.
 Orange Bishop, 201.
 ,, Cheek, 199.
 ,, Weaver, 225.
 Orange-headed Ground Thrush, 106.
 Orinoco Goose, 79, 107, 282.
 Oriole, Golden, 207, 212.
 Ornamental Pheasant Society, 237, 334.
 Ornate Tanager, 212.
Otocompsa leucogenys, 106.
 Outdoor Aviary, an Easily Constructed, 108.
 Outdoor Flight for Budgerigars, 241, 334.
 Owl, Snowy, 223.
Pachycephala kandavensis, 164.
 Painted Finch, 57, 253, 333.
 ,, ,, Breeding the, 300.
 ,, ,, Breeding the, in Australia, 16.
 ,, Quails, 233.
 Palawan Peacock Pheasant, 25, 52, 274.
 Paradise Sheldrake, 25, 118.
 ,, Whydahs, 77, 225.
 Parrakeet, Adelaide, 229.
 ,, Alexandrine, 60, 113, 330.
 ,, Australian, 207, 251.
 ,, Barnards, 75.
 ,, Barraband, 72, 228, 302.
 ,, Bauer's, 302.
 ,, Blue-banded Grass, 122.
 ,, Blue-wing, 73.
 ,, ,, Grass, 121.
 ,, Bourke's, 73, 121.
 ,, Brown's, 302, 321.
 ,, Crimson-wing, 75, 227, 321, 331.
 ,, Derbyan, 228, 331.
 ,, Elegant, 73.
 ,, ,, Grass, 121.
 ,, Eye Disease in, 118.
 ,, Fijian, 92.
 ,, Golden-mantle, 72.
 ,, Grass, 120.
 ,, Green-winged Shining, 88.
 ,, Hooded, 74, 321.
 ,, King, 228, 258, 302.
 ,, Layard's, 228, 275.
 ,, Malabar, 228.
 ,, Many-colour, 227.
 ,, Masked, 92, 94, 150.
 ,, Mealy Rosella, 75, 227, 239.
 ,, Ngau Island, 126.
 ,, Pennant, 227, 258, 302.
 ,, "Personata," 91.
 ,, Plumhead, 75, 228.
 ,, Princess of Wales's, 88, 119, 331.
 ,, Pyrrhulopsis, 150.
 ,, Quaker, 302.
 ,, Queen Alexandra's, 119.
 ,, Red-rump, 60, 74.
 ,, Red-shining, 91, 93, 97.

- Parrakeet, Ringneck, 228, 331.
 „ Rock Grass, 121.
 „ „ Peplar, 75, 228, 302.
 „ Rosella, 72, 239.
 „ Scarlet-chested Grass, 124.
 „ Slaty-head, 229.
 „ „ Splendens,” 90.
 „ Splendid, 73.
 „ „ Grass, 72.
 „ Stanley, 72, 228.
 „ Sula Island King, 228.
 „ Swift, 229.
 „ Turquoise, 73.
 „ „ Grass, 120.
 „ Yellow-bellied, 227, 239.
 „ „ -mantled, 227.
 „ „ -rump, 72.
 Parrakeet Breeding Results at Fox-warren Park in 1935, 330.
 „ Hand Rearing of the King and Pennant, 258.
 Parrot, Amazon, 216.
 „ Blue-fronted Amazon, 207, 277.
 „ Cockatoo, 239.
 „ Eclectus, 88.
 „ Grass, 239.
 „ Grey, 195, 229.
 „ Sclater's, 227.
 „ Shell, 239.
 „ Racket-tailed, 227.
 „ White-capped, 11.
 „ Worcester's Hanging, 227.
 Parrot Ban, 156, 196, 201, 262, 289, 314.
 Parrot Ban and the Future of Aviculture, 201.
 Parrot Finches, 77, 246, 249.
 Parson Finch, 303, 304.
 Partridge, Fytche's, 105.
 „ Madagascar, 105.
 „ Roulroul, 105.
 Peaceful Doves, 303.
 Peachfaced Lovebird, 61, 113.
 Peacock Pheasant, 52, 274.
 „ „ Chinquis, 274.
 „ „ Germain's, 274.
 „ „ Malay, 274.
 „ „ Palawan, 274.
 Peafowl, 302.
 Peafowl, Black-shouldered, 25.
 „ Burmese, or Spicifer, 274.
 „ Common, 274.
 Peale's Parrot Finch, 135.
 Pectoral Finch, 200.
 Pekin Robin, 28, 154, 200, 207, 212, 252.
 Pelicans, 124.
 Pennant's Parrakeet, 227, 258, 302.
 Perouse's Fruit Dove, 164.
 Persian Bulbuls, 201.
 „ Personata ” Parrakeet, 91.
 Peter's Spotted Firefinch, 161, 180, 198, 205, 237, 334.
 „ „ „ Breeding of, 198.
 „ „ „ Breeding, 161.
 Petrel, 222.
 „ Sooty, 34.
Phaps chalcoptera, 105, 151.
Phasianus, 268.
 Pheasant, Amherst, 52, 274.
 „ Annamese, 271.
 „ Bels, 52, 271.
 „ Berlioz's, 271.
 „ Black-backed Kalij, 271.
 „ „ -crested Kaleege, 52.
 „ „ „ Kalij, 271.
 „ Black-necked, 52.
 „ Blue Crossoptilons, 25.
 „ Blyth (Tragopan), 25, 52, 267.
 „ Borneo Fireback, 52.
 „ Bronze-tailed Polyplectrons, 25, 273.
 „ Bulwer's, 52.
 „ Cheer, 52, 270.
 „ Chinese Ringneck, 272.
 „ Chinquis Peacock, 52, 274.
 „ Corean, 272.
 „ Crestless Fireback, 52, 272.
 „ Crested Fireback, 272.
 „ Dark Golden, 19, 57.
 „ Edwards, 25, 52, 272.
 „ Elliot, 52, 237, 273.
 „ Fireback, 272.
 „ Formosan, 273.
 „ Germain, 25, 52, 274.
 „ Golden, 52, 273.
 „ Himalayan, 270.
 „ Horsfields Kalij, 271.
 „ Imperial, 25, 272.
 „ Japanese Copper, 273.
 „ Kalij, 271.
 „ Koklass, 52, 270.
 „ Lewis's, 271.
 „ Lineated Kalij, 271.
 „ Longtailed, 273.
 „ Malay Argus, 25, 52.
 „ Melanistic Mutant, 52, 273.
 „ Mikado, 25, 52, 273.
 „ Monaul, 52, 302.
 „ Mongolian, 272.
 „ Ocellated Argus, 274.
 „ Palawan Peacock, 52.
 „ Peacock, 52.
 „ Prince of Wales's, 273.
 „ Pure White, 52.
 „ Reeves, 52, 273.

- Pheasant, Rheinart Argus, 25, 52.
 „ Ring-necked, 52.
 „ Satyr Tragopan, 52.
 „ Siamese Fireback, 52, 272.
 „ Silver, 25, 52, 271.
 „ Soemmering, 52.
 „ Sumatran Fireback, 272.
 „ Swinhoe, 52, 271.
 „ Temminck Tragopan, 52.
 „ Versicolor (or Japanese Green), 273.
 „ Vieillot Fireback, 52.
 „ Wattled, 272.
 „ White-crested, 25.
 „ „ Kalcege, 52.
 „ „ Kalij, 271.
 Pheasant Collection, Capt. C. Scott-Hopkins', 51.
 Pheasants, 64, 125.
 „ Notes on, 268.
 Pheasants, their Status at Liberty and in Captivity, 268.
Philemon, 323.
 „ *argenteiceps*, 323.
 „ *corniculatus*, 323.
 „ *gordori*, 323.
Phlogothraupis sanguinolenta, 88.
Phaethon lepturus catesbyi, 222.
Pholidauges leucogaster, 148.
 Pied Grallina, 107, 214.
 Pigeon, Bronze-wing, 25, 105, 151.
 „ Blue-headed, 25.
 „ Crown, 303.
 „ Fijian White-throated, 167.
 „ Nicobar, 25.
 „ Nutmeg, 166.
 „ Stair's Ground, 167.
 „ Swinhoe's Pheasant-tailed, 106.
 „ White-fronted Amethyst Ground, 168.
 „ „ Ground, 167, 168.
 „ Wonga Wonga, 106.
 Pileated Bunting, 334.
 „ Finch, 150.
 Pink-breasted Robin, 239.
 „ -footed Goose, 117, 281.
 Pintail 84, 107.
 „ Chilian, 85.
 „ Chinese, 285.
 „ Duck, 284.
 Pintailed Nonpareil, 303.
 „ Whydahs, 206.
Pionus senilis, 11.
Pirenestes ostrinus rothschildi, 159.
 Pitta, Blue-tailed, 141, 208, 212.
 „ Hooded, 25, 172.
 „ Macklots, 143.
Pitta mackloti, 143.
Pitylus viridis, 142.
Ploceidae, 159.
 Plover, African Wattled, 107.
 Plumbeous Finch, 7.
 Plumhead Finch, 315.
 „ Parrakeet, 75, 228.
 Pochard, 86, 286.
 „ American, 86, 286.
 „ Red-crested, 85, 285.
 „ White-eyed, 86, 286.
 „ „ Polly—My Amazon," 277.
Polyplectrons, 273.
 „ *katsumatae*, 274.
 „ *malaccensis*, 274.
 „ *schleiermackeri*, 274.
Polyplectrons, Grey, 25.
Polytelis alexandrae, 331.
 „ *derbyana*, 331.
 „ *krameri*, 331.
 „ *nipalensis*, 331.
 Pope Cardinals, 56, 155.
 Port Natal Sunbird, 207.
 Precious Has An Adventure, 215.
 Princess of Wales Parrakeet, 88, 119, 331.
 „ „ Pheasant, 273.
Psephotus dissimilis, 321.
Psittacula calithrapæ, 275.
Pterodroma hasitata, 222.
Ptilinopus perousei mariaæ, 164.
Ptilosclera versicolor, 391.
Pucrasia, 270.
 „ *macrolopha*, 271.
Puffinus griseus, 34.
 „ *lherminieri*, 223.
 Pure White Pheasant, 52.
 Purple Finches, 115.
 „ Grenadier Waxbills, 23.
 „ Sugar Bird, 88, 148.
 Purple-headed Glossy Starlings, 206.
 „ Starling, 212.
Pyranga rubra cooperi, 265.
 „ „ *hepatica*, 265.
 „ „ *rubra*, 265.
Pyromelana oryx, 106.
Pyrrhulopsis parrakeets, 150.
Pyrrhulopsis personata, 94.
 „ *splendens*, 97.
 „ *tabuensis atrigularis*, 126.
Pytelia afra, 23, 324.
 „ *melba*, 334.
 „ „ *grotei*, 24.
 Quail, Californian, 107, 302.
 „ Chinese Painted, 106.
 „ Painted, 233.
 Quaker Parrakeet, 302.
 Queen Alexandra's Parrakeet, 119.

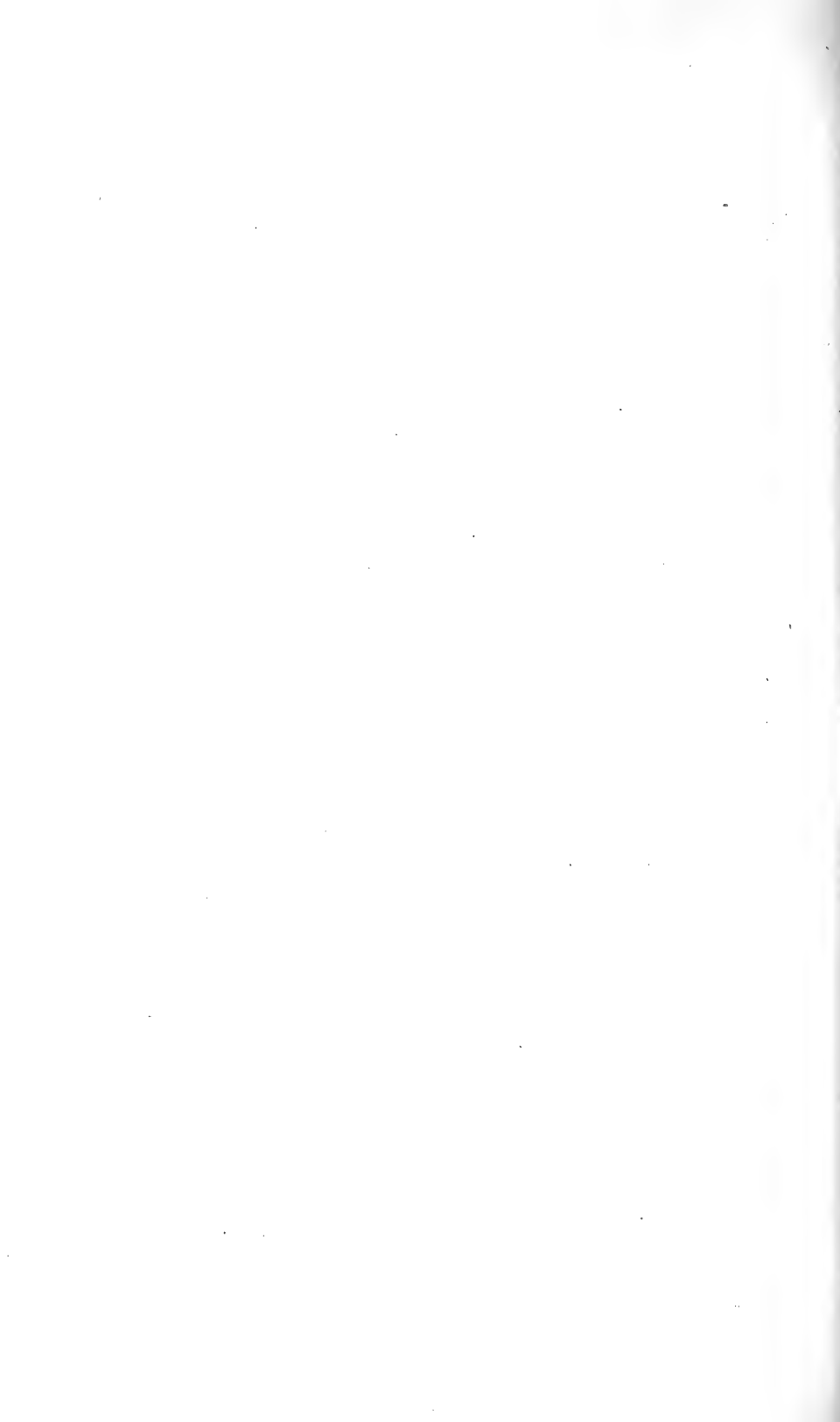
- Queen of Bavaria Conures, 229.
 Queen Whydah, 206, 225.
 Quit, Banana, 141.
- Racket-tailed Drongo, 207, 212, 235.
 „ Parrots, 229.
- Rail, Fijian, 168.
- Rainbow Bunting, 28, 160, 201, 253.
- Rajah Sheldrake, 25.
- Rearing of a Red-and-Yellow Macaw at
 Lilford, 87.
- Records, Duck-breeding, 280.
- Records of Birds Bred in Captivity, 195.
- Red Cardinals, 115.
 „ Junglefowl, 272.
 „ Shoveler, 285.
- Red-and-Yellow Macaw, 265.
 „ „ Rearing of a, 87.
- Red-billed Duck, 285.
 „ „ Toucan, 212.
 „ „ Tree Duck, 25, 283.
- Red-breasted Goose, 282.
 „ Mergansers, 126.
- Red-collared Lory, 320.
- Red-crested Cardinals, 155.
 „ Finches, 155.
 „ Pochard, 85, 285.
- Red-eared Firetail Finch, 18.
 „ Waxbills, 264.
- Red-eyed Crimson-wings, 23.
- Red-faced Waxbill, 23, 334.
- Red-flanked Capped Waxbills, 207.
- Red-headed Gouldians, 206.
 „ Parrot Finch, 22, 76, 303.
- Red-rump Parrakeet, 60, 74.
- Red-shining Parrakeet, 91, 93, 97.
- Red-throated Diver, 126.
- Red-vent Bulbul, 93.
- Red-winged Tanager, 115.
- Reddish Finch, 50.
- Redpoll, 63, 195.
- Redrumps, 113.
- Redrump Parrakeets, 60.
- Redwings, 114.
- Reeves Pheasant, 52, 273.
- Reported Mannikin + Canary Hybrids,
 292.
- Reviews—
Every Bird Garden a Sanctuary, 309.
Les Oiseaux, vol. i, 29.
Ornamental Pheasants, 310.
Some Birds of the London Zoo, 236.
The Birds of Midlothian, 236.
Vögel Ferner Länder, 310.
Nature in the Wild, 335.
- Rhea, Darwin's, 24.
 „ White, 303.
- Rheas, 24.
- Rheinart's Argus Pheasant, 25, 52.
Rheinartia, 274.
 „ *o. nigrescens*, 274.
- Ringed Teal, 285.
- Ringneck Doves, 262.
 „ Parrakeet, 228, 331.
- Ring-necked Pheasant, 52.
 „ Scaup, 86, 286.
- Ring-necks, 75.
- River-Duck, White-backed, 286.
- Robin, Blue, 219.
 „ Dusky, 239.
 „ Flame, 238.
 „ Gaboon Forest, 158.
 „ North Island, 89.
 „ Pekin, 28, 154, 200, 207, 212, 252.
 „ Pink-breasted, 239.
 „ Scarlet-breasted, 239.
- Robins, 115.
- Robin-Chats, Von Heuglin's, 143.
- Rock Grass Parrakeets, 121.
- Rock Peplar Parrakeet, 75, 228, 302.
- Rock Wren, 42.
- Rollulus roulroul*, 105.
- Rosefinch, Mexican, 176, 303.
 „ Scarlet, 176.
- Rosella Parrakeet, 72, 239.
- Ross's Snow Geese, 25, 282.
- Rosybill Duck, 85, 285.
- Rosy-bills, 107.
- Rosy Twin-spot, 197.
- Rothschild's Grackle, 88.
- Roulroul Partridge, 105.
- Royal Parrot Finch, 21.
 „ „ Breeding of the, 245.
 „ Starling, 212, 214.
- Ruby and Topaz Humming Bird, 144,
 146.
- Ruddy-headed Goose, 80, 282.
 „ Sheldrake, 81.
- Ruddy Sheldrake, 25.
 „ Shelduck, 118, 283.
- Ruffed Lories, 91.
- Ruficauda Finch, 76, 150, 205, 234, 287.
- Rufous-bellied Finch, 117.
 „ Niltavas, 147, 252.
- Rufous-collared Finch, 48, 116.
- Saffron Finch, 201.
- S. African Black Duck, 284.
- Sandwich Island Goose, 80, 282.
- Sapphire, Blue-chinned, 146.
- Sarus Cranes, 108, 302.
- Satyr Tragopan Pheasant, 52, 269.
- Scaly Crowned Weaver, 207, 332.
- Scarlet Rosefinch, 176.
 „ Tanager, 201, 212.
- Scarlet-breasted Robin, 239.

- Scarlet-chested Grass Parrakeet, 124.
 „ Sunbird, 141, 148, 179.
 Scaup, 286.
 „ Common, 86.
 „ Duck, 126.
 „ Lesser, 83, 286.
 „ Ring-necked, 86, 286.
 Sclater's Monal, 270.
 „ Parrot, 227.
 Screaming Finch, 4.
 Seed-eater, Hick's, 43.
 Seed-eating Finches, 318.
 Senegal Dove, 25.
 „ Scarlet-chested Sunbird, 88.
 „ Turacos, 303.
 Serin, Grey-necked, 55.
 Shaft-tail Finches, 261.
 Shama, 66, 105, 155, 160, 172, 200, 207,
 212, 233, 254.
 Sharp-tailed Finches, 206.
 Shearwater, Audubon's, 223.
 „ Sooty, 34.
 Sheldrake, 81.
 „ Australian, 81.
 „ Common, 25.
 „ Grey-headed, 81, 283.
 „ New Zealand, 81.
 „ Paradise, 25, 118.
 „ Rajah, 25.
 „ Ruddy, 25, 81.
 „ South African, 25.
 Shelduck, Paradise, 118.
 „ Ruddy, 118, 283.
 Shell Parrot, 239.
 Short-tailed Ant-thrush, 88, 145.
 Shoveler, 85.
 „ Red, 285.
 Shrike, "Barred" Ant, 147.
 „ Bush, 158.
 „ Yellow-breasted, 164.
Sialis sialis bermudensis, 220.
 Siamese Fireback Pheasant, 52, 272.
 Sibia, Black-headed, 154, 233.
 Sikhim Siskin, 174.
 Silky Starling, Successful Rearing of
 the, 214.
 Silverbills, 26.
 Silver-eared Mesias, 154.
 Silver Pheasant, 25, 52, 271.
 Singing Finch, 160.
 Siskin, Himalayan, 175.
 „ Hooded, 229.
 „ Sikhim, 174.
 Siskins, 195.
 Siva, Blue-winged, 254.
 Skylark, 66, 223.
 Slaty-head Parrakeet, 229.
 Slenderbilled Starling, 105.
 Smew Duck, 126.
 Snipe, 126, 223.
 Snow-Goose, 79, 281, 282.
 „ Blue, 282.
 „ Ross's, 25, 282.
 Snowy Owl, 223.
 Society, Aims of the Avicultural, 263.
 Soemmering Pheasant, 52.
 Softbills, 208.
 Some British Birds in New Zealand, 62
 Some Notes on Feeding, 60.
 Somerset Aviary, Notes from, 303.
 Song Sparrows, 115.
 Sonnerat's Junglefowl, 272.
 Sooty Petrel, 34.
 „ Shearwater or
 "Mutton Bird," 34.
 South African Sheldrake, 25.
 South Devon, Notes from, 112.
 Sparrow, 239.
 „ Arrival of, 161.
 „ Diamond, 24, 150, 303.
 „ English, 223.
 „ Java, 160.
 „ Song, 115.
 „ White Java, 207.
 „ Yellow, 56, 196.
 Spectacled Finch, 10, 116.
Spermophaga pustulata, 159.
 "Spine Tail," 148.
Spinus tibetanus, 174.
 "Splendens" Parrakeet, 90.
 Splendid Grass Parrakeet, 72, 73.
Spodiopsar sericeus, 214.
Sporophila, 1, 43, 69, 116.
Sporophila albigularis, 2.
 „ *americana*, 10.
 „ *aurita*, 43.
 „ *bicolor*, 71, 117.
 „ *bouvreuil*, 50.
 „ *cærulescens*, 3.
 „ *castaneiventris*, 70.
 „ *cinnamomea*, 71, 117.
 „ *colombiana*, 8.
 „ *cucullata*, 45.
 „ *grisea*, 4.
 „ *gutturialis*, 44.
 „ *hypoleuca*, 6.
 „ *hypoxantha*, 71, 117.
 „ *lineola*, 8.
 „ *minuta*, 69.
 „ *moreleti*, 47.
 „ *nigrorufa*, 71, 117.
 „ *ocellata*, 9.
 „ *ophthalmica*, 10, 116.
 „ *palustris*, 48.
 „ *pileata*, 71.
 „ *plumbea*, 7.

- Sporophila plumbea whiteleyana*, 7.
 „ *ruficollis*, 48, 116.
 „ *superciliaris*, 5.
 „ *telasco*, 71, 117.
 „ *torqueola*, 46.
Sporopipes squamifrons, 332.
 Spot-billed Duck, 83, 284.
 Spreo Starlings, 160.
Spreo superbus, 107.
 Sprosser, Indian, 287.
 Spurwing Goose, 79, 281.
 Stair's Ground Pigeon, 167.
 Stanley Cranes, 108.
 „ Parrakeet, 72, 228.
 Star Throats, Stripe-breasted, 147.
 Starling, Amethyst, 148, 298.
 „ Crowned, 105.
 „ Glossy, 159.
 „ Green Glossy, 212.
 „ Purple-headed, 212.
 „ „ Glossy, 206.
 „ Royal, 212, 214.
 „ Silky, 214.
 „ Slenderbill, 105.
 „ Spreo, 160.
 „ Superb, 107.
 Starlings, 63, 195, 210.
Stephanibyx coronatus, 106.
 Stephen Island Wren, 43.
Stiphornis erythrothorax erythrothorax, 158.
 St. Helena Waxbills, 154, 199, 206.
 Striated Tanager, 148, 212.
 Stripe-breasted Star Throats, 147.
 Successful Rearing of the Blue-necked
 Crowned Crane in Captivity, 59.
 Successful Rearing of Layard's Parra-
 keet, 275.
 Successful Rearing of Silky Starling, 214.
 Sugar-bird, Black-headed, 212.
 „ Blue, 207, 212.
 „ Purple, 88, 148.
 „ Yellow-winged, 162, 200, 212, 237.
 Sula Island King Parrakeet, 228.
 Sumatran Fireback Pheasant, 272.
 Summary of Breeding Results in S.
 Australia, 332.
 Summer Tanager, 265.
 Sunbird, Abyssinian Splendid, 207.
 „ Amethyst-rumped, 246.
 „ Fijian Scarlet, 169.
 „ Kirks, 179.
 „ Lesser Bifasciated, 207.
 „ Mombasa Collared, 88, 143, 267.
 „ Port Natal, 207.
 „ Scarlet-chested, 141, 148, 179.
 Sunbird, Senegal Scarlet-chested, 88.
 „ Usambara Double-collared, 179.
 „ Zambezi Collared, 179.
 Sunbirds, 159, 212.
 „ Wintering in the Open, 58.
 Sun Bittern, 107, 303.
 Superb Starling, 107.
 „ Tanager, 155, 212.
 Swainson's Lorikeets, 75, 302.
 Swallow-tailed Humming Bird, 139.
 Swan, Bewick's, 280.
 „ Black, 29, 240, 280.
 „ Black-necked, 280.
 „ Common, 79, 280.
 „ Coscoroba, 280.
 „ Trumpeter, 79, 280.
 „ Whistling, 79, 280.
 „ Whooper, 79, 149, 280.
 Swift Parrakeets, 229.
 Swinhoe's Pheasant, 52, 271.
 „ Pheasant-tailed Pigeon, 106.
Synallaxis cinnemomea, 148.
Syrmaticus, 273.
 „ *elliotti*, 237.
Tachyphonus cristatus, 21.
 Talpacotis Dove, 25.
 Tambourine Dove, 77, 106.
 Tame Birds, 160.
 „ Troupial, 329.
 Tanager, Blue and Black, 212.
 „ Cooper's, 265.
 „ Crested, 21.
 „ Festive, 208, 212.
 „ Hepatic, 265.
 „ Hooded, 142.
 „ Maroon, 212.
 „ Ornate, 212.
 „ Red-winged, 115.
 „ Scarlet, 201, 212.
 „ Striated, 148, 212.
 „ Summer, 265.
 „ Superb, 155, 212.
 „ Tricolour, 212.
Tanagra bonarensis, 148.
 Tanganyika Melba Finches, 24, 180.
 Tasmanian Garden, Birds of a, 239.
 Teal, American Blue-winged, 85, 285.
 „ Andaman, 284.
 „ Australian, 84, 285.
 „ Baikal, 84, 285.
 „ Brazilian, 25, 84, 285.
 „ Chilian, 84, 285.
 „ Cinnamon, 25, 85, 285.
 „ Common, 84, 285.
 „ Falcated, 284.
 „ Green-winged, 25.
 „ Grey, 84, 285.

- Teal, Hottentot, 137.
 „ Marbled, 284.
 „ Ringed, 285.
 „ Versicolor, 85, 285.
 Temminck Tragopan Pheasant, 52, 269.
Thalurania watertoni, 147.
Thamnotæa cinnamomeiventris albi-
scapulata, 33.
 „ „ *cinnamomeiventris*, 33.
Thamnophilus doliastris, 147.
 „ *major*, 147.
Thaumalea picta var. *obscura*, 19.
 The Future of Aviculture, 336.
 The History of A 1, 216.
 The Parrot Ban, 156, 196, 201, 262,
 289, 314.
 Thick-knee, Water, 105.
 Thrush, 64.
 „ Ant, 145.
 „ Chestnut-breasted Rock, 106.
 „ Orange-headed Ground, 106.
 „ Short-tailed Ant, 145.
 „ Song, 195.
 Tinker Barbet, 158.
 Toco Toucan, 206, 212.
Tæniptera irupero, 148.
 „ *velata*, 142.
 Tomtit, New Zealand, 163.
 Toucan, Green-billed, 212.
 „ Red-billed, 212.
 „ Toco, 206, 212.
 Toucans, 210.
 Touracous, 210.
 „ Donaldson's, 212.
 „ Livingstone's, 208, 212.
 Tragopan, Blyth's, 269.
 „ Cabot's, 269.
 „ Hasting's, 269.
 „ Satyr, 269.
 „ Temminck's, 269.
 Tragopans, 269.
Traversia lyalli, 43.
 Tree-ducks, Bahama, 283.
 „ Black-billed, 25.
 „ Fulvous, 25, 107, 283.
 „ Red-billed, 25, 283.
 „ White-faced, 283.
 Tricoloured Parrot Finches, 303.
 „ Tanager, 212.
 Tropic Bird, Cocos Island, 224.
 „ „ Yellow-billed, 222.
 Troupial, 288.
 „ A Tame, 329.
 „ Brown-headed Marsh, 224.
 Trumpeter Swan, 79, 280.
 Tufted Duck, 86, 125, 286.
 Turacos, Senegal, 303.
Turdus mandarinus, 105.
 Turkeys, Brush, 25.
 „ Wild, 25.
 Turquoise Grass Parakeets, 73, 120.
 Twin-spot, Rosy, 197.
 Two Tame Birds, 66.
Tympanistria tympanistria, 106.
 Tyrants, Brazilian Water, 142.
 „ Ground, 145.
 „ "Little Widow," 148.
 „ White-headed Marsh, 141.
 Ultramarine Finch, 201.
 Upland Goose, 80, 282.
Uræginthus cyanocephalus, 24.
Urocissa cærulea, 288.
 Usambara Double-collared Sunbird, 179.
 Varied Lorrikeet, 321.
 Versicolor Bunting, 28, 253.
 „ (or Japanese Green) Pheasant,
 273.
 „ Teal, 85, 285.
 Vieillot Fireback Pheasant, 52.
 Violet-eared Waxbills, 23, 180.
Vireo griseus bermudianus, 221.
 Vireo, Bermuda White-eyed, 221.
 Virginian Cardinal, 155, 220, 251.
 Von Heuglin's Robin-Chats, 143.
 Water Thick-knee, 105.
 Waterton's Wood-nymph Humming
 bird, 88, 147.
 Water-Tyrant, Courier, 171.
 „ „ Breeding of, 171.
 Wattled Pheasant, 272.
 Waxbill, Black-cheeked, 180, 206.
 „ Blue-headed, 24.
 „ Breeding the Dufresne, 182.
 „ Dufresne's, 24, 182, 207, 333.
 „ Golden-breasted, 206, 264.
 „ Greater St. Helena, 246.
 „ Grenadier, 207.
 „ Grey, 206.
 „ Hartlaub's Spotted, 22, 88.
 „ Lesser St. Helena, 180.
 „ Purple Grenadier, 23.
 „ Red-eared, 264.
 „ Red-faced, 23, 334.
 „ Red-flanked Capped, 207.
 „ St. Helena, 154, 199, 206.
 „ Violet-eared, 23, 180.
 „ White-breasted Capped, 207.
 „ Yellow-bellied, 24.
 Waxbills, 28, 77, 107, 150, 159, 160,
 234, 264.
 Waxbills in Summer, 292.
 Waxwing, Cedar, 115.

- Weaver, Grenadier, 106.
 „ Half-masked, 225.
 „ Napoleon, 201.
 „ Orange, 225.
 „ Scaly Crowned, 207, 332.
 Weavers, 29, 113, 159, 206.
 „ Madagascar, 225.
 Wedge-tailed Eagles, 320.
 Wheatear, 219, 223.
 Where Rolls the Rio Grande, 114.
 Whistling Ducks, 125.
 „ Swan, 79, 280.
 White Asiatic Crane, 25, 303.
 „ Eared-Pheasant, 270.
 „ Java Sparrows, 207.
 „ Rheas, 303.
 „ Roseate Cockatoo, 227.
 White-backed Magpie, 239.
 „ River-duck, 286.
 White-bellied Emerald Humming-Bird,
 140, 144.
 White-breasted Caique, 62, 114.
 „ Capped Waxbills, 207.
 White-capped Parrot, 11.
 White-cheeked Bulbul, 106, 235.
 White-crested Kaleege Pheasant, 52,
 271.
 „ Pheasant, 25.
 White-eyed Pochard, 86, 286.
 White-faced Tree-Duck, 283.
 White-fronted Amethyst Ground
 Pigeon, 168.
 „ Goose, 80, 281.
 „ Ground Pigeon, 167, 168.
 White-headed Mannikin, 333.
 „ Marsh Tyrants, 141.
 White-necked Cranes, 25.
 White-throated Finch, 2, 77, 206.
 White-winged Wood Duck, 79, 201, 281.
 White-eyes, 107, 239.
 „ Madagascar, 25.
 Whiteley's Finch, 7.
 Whooper Swan, 78, 149, 280.
 Whydah, Giant, 148, 200, 225, 254.
 „ Paradise, 77, 225.
 „ Pintailed, 206.
 „ Queen, 206, 225.
 Whydahs, 29.
 Wigeon, 83, 284.
 „ American, 84, 284.
 „ Chiloe, 84, 284.
 Wild Turkeys, 25.
 Wilson's Bird of Paradise, 88.
 Wonga Wonga Pigeon, 106.
 Woodcock, 126.
 Woodpecker, Green, 126.
 Wood-Duck, White-winged, 79, 201,
 281.
 Wood-Nymph, Waterton's, 147.
 Worcester's Hanging Parrot, 227.
 Wren, Blue, 239.
 „ Emu, 239.
 „ Rock, 42.
 „ Stephen Island, 43.
Xenicus gilviventris, 42.
 Yellow Sparrow, 56, 196.
 Yellow-bellied Parrakeet, 227, 239.
 „ Waxbill, 24.
 Yellow-billed Duck, 83, 284.
 „ Tropic Birds, 222.
 Yellow-breasted Shrike or Thickhead,
 164.
 Yellow-mantled Parrakeet, 227.
 Yellow-rump Parrakeet, 72.
 Yellow-winged Sugar Birds, 162, 200,
 212, 237.
 Yuhinas, Black-chinned, 235.
 Zambezi Collared Sunbird, 179.
 Zebra Finch, 27, 56, 75, 160, 200.
 „ Waxbills \times Cordon Bleu Hybrids,
 293.
Zenaida aurita, 262.
Zonæginthus bellus, 18, 334.
 „ *oculatus*, 18.
 Zosterops, 212, 239.
 „ Chinese, 207.
 „ New Hebrides, 21.
 „ New Zealand, 32, 37.
Zosterops flavifrons, 21.
 „ *halmaturina*, 37.



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